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THE ICE HOUSE and the HOT HOUSE, types of Lapland and the Tropics, are two contrivances which civilization has invented for the comfort or luxury of man. A native of the Sandwich islands, who lives, as he conceives, in the most delicious climate in the world, and sleeps away the best part of his life in that happy state which the pleasure-loving Italians call "*dolce far niente*," (sweet do nothing)—smiles and shudders when he hears of a region where his familiar trees must be kept in glass houses, and the water turns, now and then, into solid cold crystal!

Yet, if happiness, as some philosophers have affirmed, consists in a *variety* of sensations, we denizens of temperate latitudes have greatly the advantage of him. What surprise and pleasure awaits the Sandwich islander, for example, like that we experience on entering a spacious hot-house, redolent of blossoms and of perfume, in mid-winter, or on refreshing our exhausted frames with one of "Thomson and Weller's" vanilla creams, or that agreeable compound of the vintage of Xeres, pounded ice, etc., that bears the humble name of "sherry cobbler;" but which having been introduced lately from this country into London, along with our "American ice," has sent into positive ecstacies all those of the great metropolis, who depend upon their *throats* for sensations.

Our business at the present moment is with the *Ice-house*,—as a necessary and most useful appendage to a country residence. Abroad, both the ice-house and the hot-house are portions of the wealthy man's establishment solely. But in this country, the ice-house forms part of the comforts of every substantial farmer. It is not for the sake of ice-creams and cooling liquors, that it has its great value in his eyes, but as a means of preserving and keeping in the finest condition, during the summer, his meat, his butter, his delicate fruit, and in short his whole perishable stock of provisions. Half a dozen correspondents, lately, have asked us for some advice on the construction of an ice-house, and we now cheerfully offer all the information in our possession.

To build an ice-house in *sandy or gravelly soils*, is one of the easiest things in the world. The drainage there is perfect, the dry and porous soil is of itself a sufficiently good *non-conductor*. All that it is necessary to do, is to dig a pit, twelve feet square, and as many deep, line it with logs or joists faced with boards, cover it with a sim-

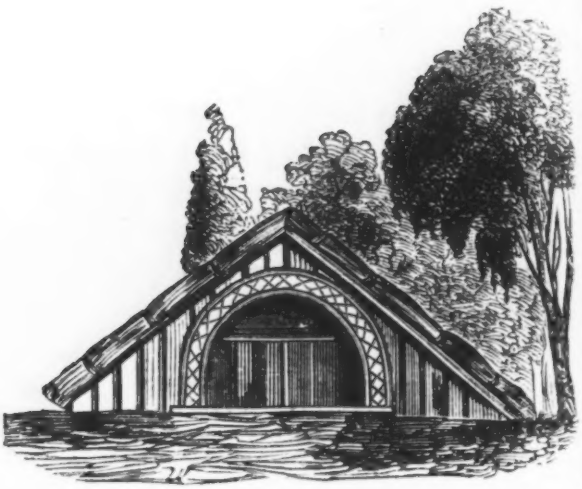

Fig. 65. *The common Ice-house below ground.*

ple roof on a level with the ground, and fill it with ice. Such ice-houses, built with trifling cost, and entirely answering the purpose of affording ample supply for a large family, are common in various parts of the country.

But it often happens that one's residence is upon a strong loamy or clayey soil, based upon clay or slate, or, at least, rocky in its substratum. Such a soil is retentive of moisture, and even though it be well drained, the common ice-house just described will not preserve ice half through the summer in a locality of that kind. The clayey or rocky soil is always damp — it is always an excellent conductor, and the ice melts in it in spite of all the usual precautions.

Something more than the common ice-house is therefore needed in all such soils. "How shall it be built?" is the question which has been frequently put to us lately.

To enable us to answer this question in the most satisfactory manner, we addressed ourselves to Mr. N. J. WYETH of Cambridge, Mass., whose practical information on this subject is probably fuller and more complete than that of any other person in the country, he, for many years, having had the construction and management of the enormous commercial ice-houses near Boston—the largest and most perfect known.*

We desired Mr. WYETH's hints for building an ice-house for family use, both above ground, and below ground.

In the beginning, we should remark that the great ice houses of our ice companies are usually built above ground; and Mr. WYETH in his letter to us remarks, "*we now never build or use an ice-house under ground;* it never preserves ice as well as those built above ground, and costs much more. I, however, send you directions for the construction of both kinds, with slight sketches in explanation." The following are Mr. WYETH's directions for building:

"1*st. An Ice-house above ground.* An ice-house above ground should be built upon

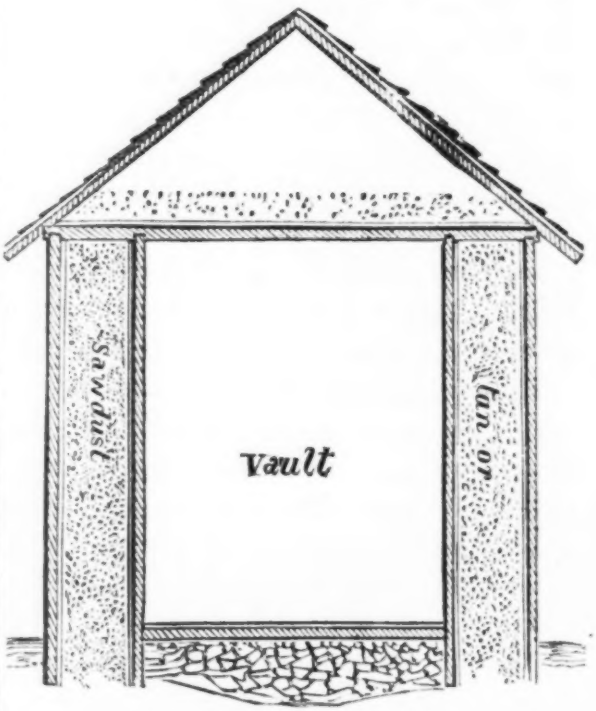

Fig. 66. *Section of the Ice-house above ground.*

the plan of having a double partition, with the hollow space between filled with some non-conducting substance.

* Few of our readers are aware of the magnitude which the business of supplying foreign countries with ice has attained in New-England. Millions of dollars worth have been

"In the first place, the frame of the sides should be formed of two ranges of upright *joists*, 6 by 4 inches; the lower ends of the joists should be put into the ground *without any sill*, which is apt to let air pass through. These two ranges of joists should be about two feet and one-half apart at the bottom, and two feet at the top. At the top these joists should be morticed into the cross-beams, which are to support the upper floor. The joists in the two ranges should be placed each opposite another. They should then be lined or faced on one side, with rough boarding, which need not be very tight. This boarding should be nailed to those edges of the joists nearest each other. so that one range of joists shall be outside the building, and the other inside the ice-room or vault. (Fig. 67.)

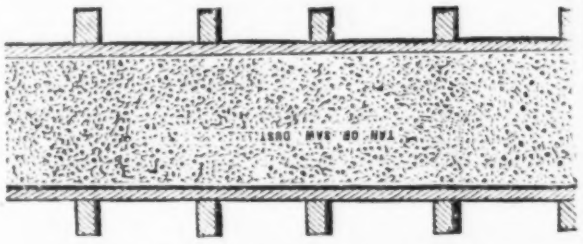

Fig. 67. *Manner of nailing the boards to the joists.*

"The space between these boardings or partitions should be filled with wet tan, or sawdust, whichever is cheapest or most easily obtained. The reason for using *wet* material for filling this space is, that during winter it freezes, and until it is again thawed, little or no ice will melt at the sides of the vault.

"The bottom of the ice vault should be filled about a foot deep with small blocks of wood; these are levelled and covered with wood shavings, over which a strong plank floor should be laid to receive the ice.

"Upon the beams above the vault, a pretty tight floor should also be laid, and this floor should be covered several inches deep with dry tan or sawdust. The roof of the ice-house should have considerable pitch, and the space between the upper floor and the roof should be ventilated by a lattice window at each gable end, or something equivalent, to pass out the warm air which will accumulate beneath the roof. A door must be provided in the side of the vault to fill and discharge it; but it should always be closed up higher than the ice, and when not in use should be kept closed altogether.

"2*d*. *An Ice-house below ground.* This is only thoroughly made by building up the sides of the pit with a good brick or stone wall, laid in mortar. Inside of this wall set joists, and build a light wooden partition against which to place the ice. A good floor should be laid over the vault as just described, and this should also be covered with dry tan or sawdust. In this floor the door must be cut to give access to the ice.

"As regards the bottom of the vault, the floor, the lattice windows in the gables for ventilation, etc., the same remarks will apply that have just been given for the ice-house above ground, with the addition that in one of the *gables*, in this case, must be the door for filling the house with ice.

"If the ground where ice-houses of either kind are built, is not porous enough to let the melted ice drain away, then there should be a waste pipe to carry it off, which should be slightly bent, so as always to retain enough water in it to prevent the passage of air upwards into the ice-house."

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shipped from the port of Boston alone, within the last eight years; and the East and West Indies, China, England and the South, are constantly supplied with ice from that neighborhood. *Wenham Lake* is now as well known in London for its ice, as Westphalia for its hams. This enterprise owes its success mainly to the energy of FREDERICK TUDOR, Esq., of Boston. The ice-houses of this gentleman, built, we believe, chiefly by Mr. WYETH, are on a more gigantic scale than any others in the world. An extra whole year's supply is laid up in advance, to guard against the accident of a mild winter, and a railroad several miles in length, built expressly for the purpose, conveys the ice to the ships lying in the harbor.

These plain and concise hints by Mr. WYETH, will enable our readers, who have failed in building ice-houses in the common way, to remedy their defects, or to construct new ones on the improved plan just given. The main points, it will be seen, are, to place a sufficient non-conducting medium of tan or saw-dust, if above ground, or of wall and wood partition, if below ground, to prevent the action of the air, or the damp soil, on the body of ice enclosed in the vault.

Mr. WYETH has not told us how large the dimensions of an ice-house built in either of these modes should be to provide for the use of an ordinary family through a season; but we will add as to this point, that a cube of twelve to fourteen feet—that is, a house, the vault of which will measure about twelve to fourteen feet "in the clear," every way, will be quite large enough, if properly constructed. An ice-house, the vault of which is a cube of twelve feet, will hold about fifty tons of ice. One of this size, near Boston, filled last January, is still half full of ice, after supplying the wants of a family all the season.

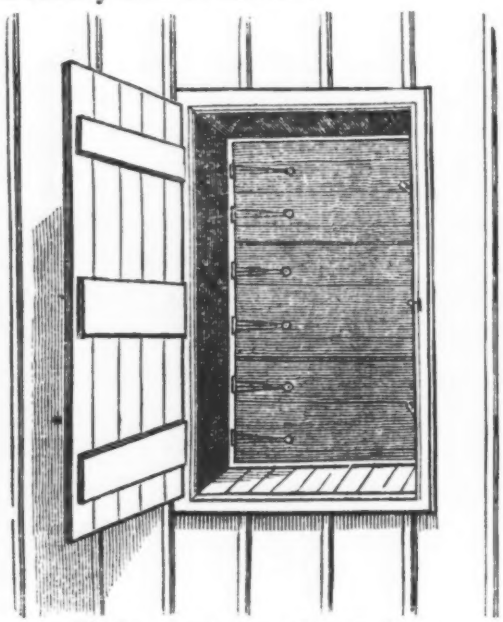

Fig. 68. *Double Door of the Ice-house.*

In the ice-house above ground, the opening being in the side, it will be best to have a double door, one in each partition, opposite each other. The outer one may be entire, but the inner one should be in two or three parts. The upper part may be opened first, so that only so much of the ice may be exposed at once, as is necessary to reach the topmost layers.

An ice-house below ground is so inconspicuous an object, that it is easily kept out of sight, and little or no regard may be paid to its exterior appearance. On the contrary, an ice-house above ground is a building of sufficient size to attract the eye, and in many country residences, therefore, it will be desirable to give its exterior a neat or tasteful air.

A simple and pleasing mode of doing this, and one which probably will prove quite satisfactory in most farms and country seats, will be to side or weather-board the exterior joists, (left by Mr. WYETH,) and build the roof, after the mode shown in the *frontispiece* of the September number of this journal, and explained on page 109.

It will frequently be found, however, that an *ice-house above ground* may be very conveniently constructed under the same roof as the wood-house, tool-house, or some other necessary out-building, following all the necessary details just laid down, and continuing one roof and the same kind of exterior over the whole building.

In places of a more ornamental character, where it is desirable to place the elevated ice-house at no great distance from the dwelling, it should, of course, take something of an ornamental or picturesque character.

In figures 63 and 64, (see FRONTISPIECE,) are shown two designs for ice-houses above ground, in picturesque styles. Figure 63

is built in a circular form, and the roof neatly thatched. The outside of this ice-house is roughly weather-boarded, and then ornamented with rustic work, or covered with strips of bark neatly nailed on in pannels or devices. Two small gables with blinds ventilate the space under the roof.

Fig. 64 is a square ice-house, with a roof projecting three or four feet, and covered with shingles, the lower ends of which are cut so as to form diamond pattern when laid on the roof. The rustic brackets which support this roof, and the rustic columns of the other design, will be rendered more durable by stripping the bark off, and thoroughly painting them some neutral or wood tint.*

REMARKS ON THE PEAR BLIGHT OF THE WEST.

BY S. B. G., TERRE HAUTE, INDIANA.

Dear Sir — From the first announcement of the Horticulturist which met my eye, I looked forward to the forthcoming publication with great interest. Upon one subject in particular, that of the pear blight, I was greatly desirous of learning your opinion. For it is a matter of no small moment to the lovers of this delicious fruit (and who is not?) whether or not they are to lose it. It is not of so much consequence that we know a great deal about the *disease*—of that, alas! we have sad experience already; but if a *remedy* can be sought out, he will deserve well of his country who shall make it known.

I am not satisfied with any of the various theories put forth as to the cause of this disease. That one form of blight is produced by insects, there is no doubt; but that the other is caused by freezing and thawing, I am sceptical. This doubt, I am aware, calls in question the opinions of some of the most eminent horticulturists of our land, your own among them, as given in the August number of your valuable journal. The views of H. W. Beecher, editor of the Western Farmer and Gardener, and of Mr. Reuben Ragan, one of the best pomologists of the West, first attracted my attention. Their theory is, that the warm, mild, and sometimes moist weather, which we frequently have in autumn, causes the pear tree to put forth young shoots. These being unripe wood, and readily susceptible to the frosts of winter, are frozen; the sap thereby becomes putrid or poisonous, and being carried into the circulation, the entire system is impregnated with its deleterious properties, and the tree dies. The same effects are said to follow frosts which occur late in the spring, after vegetation has put forth.

If this theory be true, why have its effects manifested themselves so recently? Our climate has undergone no change. The vicissitudes of weather have never been less than now. I have resided upon the Wabash more than twenty-three years, and have known no difference in this respect. I have known almost whole winters that the plough might have run, while others have been cold. Late spring frosts, and late warm humid fall weather, have always marked our fitful climate, yet was the pear-blight never heard of until recently. Individual trees may have died, but the disease never prevailed as an epidemic. On

* The projecting roof will assist in keeping the building cool. In filling the house, back up the wagon loaded with ice, and slide the squares of ice to their places on a plank serving as an inclined plane

the tenth of May, 1834, we had the severest frost I ever knew so late in the season, except the ever memorable summer of 1816. That spring, 1834, had been warm, and vegetation had put forth early. I well remember that the foliage of the Locust, which comes late into leaf, was half grown. Nothing that frost could kill survived it — not a fruit bud from the Oak, Walnut and Hickory, to the Apple, Pear and Peach, escaped. In the fall of that year, the ravages of the squirrels in our cornfields were terrible. They came from the forests by thousands and tens of thousands; for not a nut had the frost left them; yet we heard nothing of pear-blight. We had a severe frost also on the tenth of May, 1845, and a light one on the same morning the present year. To that of 1845, is ascribed the extensive blight of that year; but severe as it was, it was a trifle compared with that of 1834. Like causes should have produced like effects long ago.

Another objection to the frozen-sap theory is, that this form of blight attacks old instead of young trees. Trees which have for many years borne fine crops of pears are cut down, while the saplings in our nursery escape unhurt.

Again: the freezing of sap does not change its properties. That the freezing of vegetable matter in a certain state of development produces death, may be admitted; and if this occurs when branch and leaf are making their first rapid push in the spring, the tree may be killed by the sudden destruction of its leaves, for they are taken away when most in requisition for the elaboration of the sap. By this means, much oak, beech and other large timber, was killed by the frost of 1834. It may also be admitted that the freezing in winter may be so severe as to destroy the vital [illegible] as well in vegetable as animal life. Of this character were the ravages of the winter of 1835. Death thus produced is not occasioned by deleterious properties imparted to the sap, but by the mechanical force of the frost upon the cellular and woody tissues. What intensity of freezing is required to destroy vegetable life, depending, as it does, upon the habits of the plant, and those habits being as various as the climates of our earth, it is not easy to say; but one thing is certain, and that is, that in our climate the freezing of the extremities of trees is as common as the return of the season of frosts. All our trees are frozen, except their trunks and large branches, every winter, especially the young and tender wood of the past summer's growth; and if an elaboration of the sap, injurious in its consequences, were thereby produced, no vegetable matter would survive a single winter. The economy of the vegetable world rests not on so insecure a basis as this would indicate.

Still one thing is evident — blight is a disease of the circulation. In proof of this, in the summer of 1845, I visited my friend, Mr. RAGAN, who showed me his pear trees, and the ravages of the blight among them. His finest trees presented a melancholy spectacle of disease, decay, and death. Our conversation being directed to the cause of the malady, he mentioned that a few days previous, he had, by way of experiment, inoculated a thrifty young pear tree in his nursery with the sap of a blighted tree, and proposed that we should go and examine it, which we did. He had made an incision about three feet from the ground, lifted the bark as in the process of budding, and injected a small quantity of the diseased sap. We found the leaves of the patient changing color, and emitting that peculiar odor which indicates the incipient state of decay, which is always present in cases of blight;

and upon applying the knife, the inner bark was found to be black from the root to the top, while nothing of the kind appeared elsewhere in the nursery.

The important inquiry arises in reference to the frozen sap theory, what is the remedy? You propose as a preventive, whitewashing the stems and principal branches in autumn, whereby the rays of the sun will be reflected, and too rapid thawing prevented; but if the disease, as this theory supposes, is contracted *at the extremities*, and is conveyed through the system by the circulation of its fluids, can the protection of the trunk and branches avail any thing? It would seem not.

There is no occasion to theorize upon this subject for the mere sake of theory, and I have none that I regard as certainly true; but I strongly incline to the belief that the pear blight is an *epidemic;* that it prevails like other epidemics, and will pass off like them. The atmosphere is, I believe, generally admitted to be the medium by which they prevail, and are carried from place to place. What that subtle principle may be, which pervades our atmosphere, by which infection is retained and transmitted, so that, like the Asiatic cholera, it makes the whole circuit of our earth, human science has not discovered, and perhaps never will; but that such a principle exists, is sufficiently obvious from its effects. Vegetable aliment consists in a much greater degree than animal of the constituents of atmospheric air. The carbon, which forms so large a proportion of woody plants, a familiar fact in vegetable physiology, is conclusive evidence of this. If then the atmosphere is the agent by which contagion is transmitted from animal to animal, there is, to say the least, as good reason to believe that the vegetable world may be affected in like manner. That the potato blight is thus transmitted, I have no doubt; and that the parasitic fungi which have been described, have been mistaken for the *cause*, instead of the *consequence* of this disease, I question as little.

The question has been often proposed, are we to give up our pears, and abandon their cultivation? I confess, that were I fully impressed with the truth of the frozen-sap theory, I should be inclined to give up in despair, and abandon the hope of having fine pears again. The vicissitudes of weather in our climate are so great and sudden, that I see no reasonable prospect of counteracting their effects. But a kind Providence has gratified the taste of man with this luscious fruit, and I believe he will continue the blessing. We *have* enjoyed it, and I do not believe there has occurred any such revolution of nature and of the elements, that we may not enjoy it still. Trees brought forward now, will probably not be affected by the epidemic, as it will have passed away. In this belief, we may be encouraged, "in the morning to plant, and in the evening not to withhold our hand, knowing not whether this or that shall prosper," but trusting that in due time "we shall gather fruit if we faint not." Yours respectfully. S. B. G.

Terre Haute, Ia., Oct. 17. 1846.

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Remarks.—We gladly give place to the observations of our correspondent on this interesting subject; because, though we have strong faith in our views, now pretty generally shared by the country at large, regarding the *frozen-sap blight*, we consider it one of the subjects on which a great deal of practical light may yet be thrown. The theory suggested above, that it is an epidemic conveyed by the atmosphere, is too slightly supported by facts to weigh at all against the observations made by cultivators of the pear in various parts of the

country, all of which strongly point to the freezing of the sap as the cause of the most fatal kind of blight.

Were the cause atmospheric, *its effects would always be seen first at the points of the shoots*, the young leaves and the tenderest sap vessels having the most direct connection with the atmosphere. Its first symptoms also would always develop themselves in the growing season.

Now it is well ascertained, that the first symptoms of the *frozen-sap blight* are the appearance of black and discolored patches or spots on the bark of the limbs or trunk, a long way from the extremities; and also that these are first seen in late autumn, winter or early spring, while the tree is in a dormant state, without leaves, and consequently least susceptible of atmospheric influences. A tree which matured and shed its leaves, apparently in perfect health, will, early in the spring, show these black and dead patches, and that the branch or limb on which they appear, will fall a prey to the blight during the current season, may then be predicted with certainty.

While, therefore, we repeat our advice, to prevent the injurious action of the frost and sun by whitewashing pear trees, in localities where they are liable to suffer from this form of blight, we by no means consider this disease as thoroughly understood, and would gladly gather from observers, in all parts of the country, their own observations and facts as to the actual symptoms of the disease itself.—Ed.

The Six best Apples for the Climate of Boston.

BY B. V. FRENCH, BRAINTREE, MASS.

[The remarks which follow are from the pen of B. V. French, Esq., who is acknowledged to be the best cultivator of the apple in the neighborhood of Boston. The selection he recommends, is one based entirely on his own practical observations; and we believe, he cultivates in the orchards on his estate at Braintree, a larger collection than any amateur in Massachusetts.—Ed.]

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In recommending the six best apples for New-England culture, I must, of course, be understood to be confined to this number of trees. Where a larger space, and greater variety is permitted, several varieties of high merit would certainly be added. In selecting so small a number, you will understand me to bear in mind such qualities of regular productiveness, fair habit of growth, and adaptation to our climate, as make a given variety a constant favorite with the cultivator.

I have also kept in view a succession of fruit for the table and kitchen, so as to serve as a continual supply from midsummer till the succeeding spring.

1*st*. Early Harvest. For the best early apple worth cultivating, I should name the Early Harvest. The tree, with me, is a free grower, healthy, a profuse bearer, and the fruit hangs well. It ripens the last of July. The fruit is of medium size, roundish, rather flat, and if used when not quite ripe, it is one of the most excellent for pies, tarts, and cooking generally; and when fully ripened on the trees, it becomes of a fine rich yellow, and ranks high as a table fruit.

2*d*. The Porter. In succession this excellent fruit follows the Early Harvest; it

is also a free growing tree, and a great bearer. The fruit is conical-oblong, yellow; the skin is beautifully smooth and fair, and when fully ripened in the sun, has a fine blush. It is excellent for the table or for cooking, and if properly taken care of, will keep from the time of its ripening early in September, till the middle of October. The many good qualities of this native fruit have made it one of our greatest favorites.

3*d*. Fameuse.* I know of no apple to take the place of the Fameuse for the table at this season. It is in eating from the middle of October, and with care, continues so till February. The tree, with me, is small in size, and a medium bearer; the fruit is of medium size, flat; the skin is red, smooth, and takes a high polish; the flesh is very white, juicy, and, I think, in flavor, excels all others for table use, from the time the Porter is gone till the Rhode Island Greening comes into use.

4*th*. The Rhode Island Greening. The tree is a strong, hardy and free grower, and a great bearer. The fruit is flattened, of a yellowish green, with a dull blush. The flesh is tender, juicy, and of fine flavor for cooking or the table. This fruit is in use from September till February, and is fine for the table in November and December. It is too well known and esteemed to need any description of mine, having a prominent place in every good orchard.

5*th*. White Seeknofurther. This excellent fruit, I am informed, originated in the garden of the late Wm. Prince, Esq., of Flushing. In point of fine flavor, it excels all other apples that I have eaten. The tree is of medium growth, of a leaning habit, a full bearer every other year. The fruit is rather oblong, greenish with dark spots; and is not a very fair or sightly fruit. Its season is January and February. Its flesh is very juicy, tender, and fine flavored. This variety is not much known in New-England; in fact, I know of but three bearing trees.

6*th*. Baldwin. This, our most popular New-England apple, is the universal favorite as a late winter fruit. Its hardy healthy habit as a tree, and the heavy and regular crops it bears, together with its fine flavor, render it indispensable here in every orchard. Regarding the origin of this fruit, I am in possession of some interesting information, which I will at another time lay before your readers. Yours with respect.

Braintree, Oct. 26, 1846. B. V. French.

* Or *Pomme de Neige*, London Hort. Soc. Cat., and Downing's Fruit and Fruit Trees.

REMARKS ON TWO KINDS OF PEACHES.

BY WM. R. PRINCE, FLUSHING, L. I.

I presume that all pomologists are fully sensible that there has long existed, and still exists, sufficient confusion in the nomenclature of fruits; and it would, therefore, seem proper for the future, that wherever writers have nothing really new to offer, that they should at least refrain from creating additional confusion.

I feel called to the expression of these sentiments, by an article in your last number, from Robert B. Parsons, the verdancy of which is particularly striking. He has undertaken to describe two peaches, and to *correct errors*. We will now see how he

has acquitted himself, beginning with what he denominates the "White Rareripe."

The *true* White Rareripe, or Morris White of your work on Fruits, originated in the nursery of my grandfather, the first William Prince, and has been cultivated in almost every collection for above eighty years, and particularly so in this vicinity. It is very accurately described in your work, as well as in the Treatise on Fruits written by myself, in 1831, and by other writers. It is one of the few varieties that are *white at the stone*, and the glands are *reniform*.

The (so called) White Rareripe of Mr. Parsons is *red at the stone*, and has *globose* glands. To solve, however, the confusion he has thus made, you will need only to turn to our old friend Duhamel, and you will find that the ancient "Nivette" of that author, which has held its title unchangeably for above one hundred and twenty years, has been doomed at last to receive a new title from Mr. Parsons.

There is not, perhaps, in the whole list of peaches one which has been so universally known as the "Nivette." It was described by Langley in 1729, by Miller more than a century ago, by Duhamel, and by every important French and English author from his time down to the present.

It is found in the Catalogues of the London Horticultural Society, and described by Lindley in the Horticultural Transactions, and in Lindley's Guide to the Orchard and Kitchen Garden, &c.

To come to our own shores, it is described in the Treatise on Fruits published by me in 1831, in Kenrick's Orchardist, and in your Fruits and Fruit Trees of America.

The descriptions in the works referred to, are so full and explicit, that a child could scarcely mistake the fruit, and no such blunder could possibly arise where there existed any actual knowledge of fruits.

We now come to the "Green Catharine," and I regret to find that even here, Mr. Parsons has been equally unfortunate. For two years past, Messrs. Parsons & Co., and a gentleman who obtained his trees from them, have exhibited the spurious variety now described, which has been pronounced erroneous by the best authority. And whether there is any sinister motive in regard to this fruit, which they have been selling trees of for years, I will not pretend to say; but it does seem rather singular, that they should, at this late day, endeavor to give the impress of accuracy to a spurious variety, and to stamp with inaccuracy a variety cultivated by my father under this name before either of them was born, and which has been disseminated and well known throughout the Union for more than fifty years.

The genuine Green Catharine was first brought to notice by my grandfather, and I have now before me a catalogue of my late father, dated over fifty years ago, in which its qualities are stated. I remember to have heard him say, that he believed it to be of European origin, and this will explain why it has never been designated in his catalogues as an American variety. In the year 1820, it was sent by him to the London Horticultural Society, with a very large collection of other varieties. There it still exists, and its accuracy has never been questioned. Judge Strong of this town, one of the most intelligent amateur pomologists in the Union, states that many years ago my father gave him some scions for budding, with the remark that they were the genuine Green Catharine. He has had bearing trees up to the present time, and their fruit is identical with those in my nurseries. Any amount of similar proof could be deduced, and personally I know this variety to be genuine, for at earliest childhood,

a very large and favorite tree stood near my father's mansion, which cheered us with its abundant crops.

Notwithstanding the existence of such conclusive evidence, Mr. PARSONS, in announcing that his is "*quite a distinct fruit from the Green Catharine of the London Horticultural Society's Catalogue,*" refrains from acknowledging his own inaccuracy, but seeks to conceal it by arraigning the accuracy of the London Horticultural Society, the real object being to arraign that of my father and self; and he concludes by saying, "*I presume they have received their tree from some doubtful source.*"

I forbear all comment, for he who runs may read; but will conclude with a short description of the genuine variety referred to.

GREEN CATHARINE, *Lond. Hort. Soc. Cat.* Fruit of the freestone class, very large and showy, round, pale green, with a red cheek when exposed to the sun, but devoid of redness when shaded; flesh tender, very juicy, of peculiar flavor, with rather an excess of acidity, bright blood-red at the stone, the redness extending somewhat into the flesh; the skin may be peeled off completely and readily; the period of maturity is from September 10th to 20th. Being a very beautiful fruit, and of large size, it would command the highest price at market, but is seldom met with there, and seems to be entirely unknown to the orchardists of New-Jersey and Delaware. A powerful sun is indispensable to develop this variety in size, beauty and flavor. It is consequently insipid in the climate of England, or in any shady or cold location.

WM. R. PRINCE.

Flushing, Nov. 12th, 1846.

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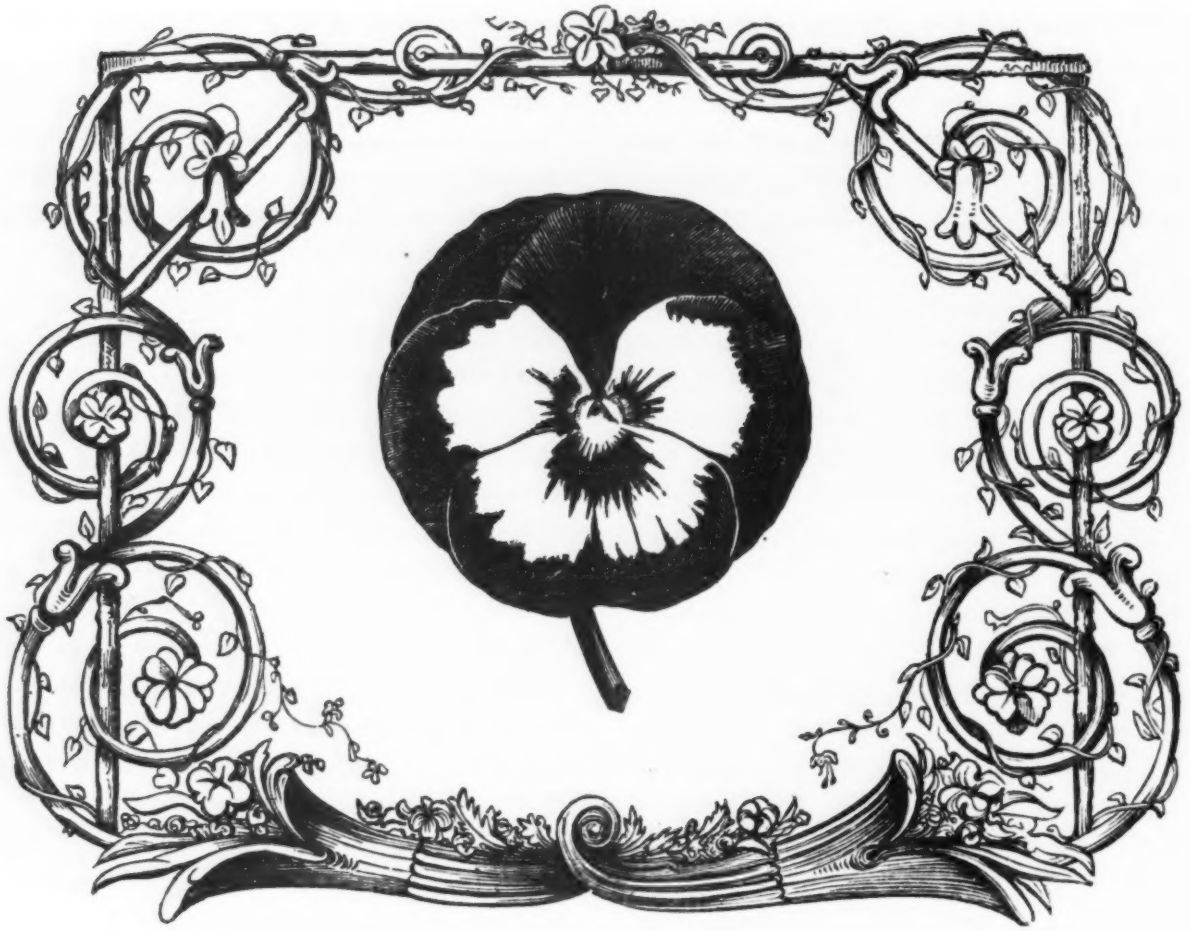
REMARKS.—We give place to the foregoing solely for the pomological remarks, and entirely repudiate the *tone* in which it is written.

Mr. PRINCE, as it is well known, is fonder of nothing than a controversy with a rival nurseryman—or as he expressed it in one of his former communications to us, "a fair fight." Our readers, therefore, must make due allowance for the motives he imputes to Messrs. PARSONS, whom we believe to be men of integrity.

Regarding the two fruits themselves, we will observe, first, that the description Mr. PARSONS has given, in our last number, of the White Rareripe peach, does correspond almost precisely with that of the well-known *Nivette.* We remarked at the time of publishing it, that all our efforts to find a White Rareripe among the many bearing this name in various gardens, had been unsuccessful. They all proved to be the Morris White Rareripe—a peach, we may remark, very variable in appearance, and maturing at various times in various soils, but always white at the stone, and always having reniform glands. We think the presumption, therefore, a strong one, that the peach described by Mr. PARSONS is the *Nivette.*

We cannot find any reason for doubting that the *Green Catharine* of the London Horticultural Society's Catalogue is correct. Indeed the fact that it is only pronounced of third quality there, while Mr. PARSONS finds it of the first quality here, only proves that it is not suited to the English climate. Scarcely one of our high flavored peaches except the George 4th, retains its character in England. There is not sun enough to give them their natural flavor.

Mr. PRINCE's description of this latter peach is imperfect, inasmuch as he does not describe the *glands* of the leaf, or the size of the blossoms, two points without knowing which, nothing can be determined in this fruit.—ED.



THE CULTURE OF THE PANSY.

FROM THE LONDON HORTICULTURAL MAGAZINE.

[All our readers are familiar with the little three-colored Violet, or Heartsease, *Viola tricolor*, that hardy and bright little spring blossom common in every garden.

But few of them are, however, aware how great a change the English florists have effected in this plant within a few years. The difference between the litlittle ragged and meagre original species, and the large and beautiful varieties that now grace the florists' shows in England, is indeed so great that any one, ignorant of the changes that may be brought about by the assiduous and patient skill of a thorough cultivator, might well be pardoned for doubting if they were the same plant.

There are very few good collections of Pansies in America. Though a very hardy plant, yet the softness of its stalk is such, that it perishes on a long sea-voyage, and it is therefore, extremely difficult to import the finest English sorts.

There is no difficulty, however, in obtaining in the seed shops of our principal cities, *seed* saved from the best English Pansies. This germinates freely, and thus one may soon be in possession of hundreds of seedlings. Among them will usually be found many of large size and great beauty. These should be preserved and propagated, and thus, by perseverance, a good collection may soon be formed. In the mean time, to as-

sist our floricultural readers, we lay before them an excellent article from the London Horticultural Magazine, which gives the whole treatment of the plant, accompanied with Illustrations showing the high style of perfection to which it has arrived in England.—Ed.]

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"There is scarcely a florist's flower which repays the grower so well for a little extra care as the Pansy, and perhaps there are few which are sooner spoiled or lost, if neglected. It may appear strange, but it is nevertheless true, that the finest variety in cultivation will, if planted out, and left to itself, degenerate in size and color so completely, as not to be recognized at all, and its constitution will be so completely altered, that cuttings from it can never be recovered, that is to say, the bloom from such cuttings can scarcely ever afterwards be got so fine as the originals were at first. This is an important fact, because a man may easily spoil his whole collection. We need not exemplify this better than by calling the recollection of Pansy growers to the state of a neglected bed. Have they not observed that the plants become straggling and weak? the flowers small and out of character? and that they might look in vain for a bloom fit to show even among the best varieties? Follow the same bed somewhat longer, and the plants get yellow, the foliage small, and probably the half of them dwindle and die altogether. Scarcely one of the flowers will be better than wild ones, and if cuttings be taken in that state, it will be impossible to make them strong plants under two or three generations, and perhaps never. The general cultivation, therefore, of the Pansy requires care and attention, although the management is simple, and those who fancy we are too particular in our directions, will find to their cost that very trifling omissions will damage their stock, and keep them far behind other competitors in the size of their blooms, and the character of their flowers. It is perfectly unnecessary here to describe the flower. The botanical name for it is *Viola tricolor*, or *Three-colored Violet*. They are the same genus, but no more like one another than the Scarlet Geranium is like the new varieties of Pelargoniums, now so much in cultivation; nor do they seem at all likely to breed or hybridize; they appear, in fact, very distinct families. The former paper, in which the properties of a perfect Pansy are given, will sufficiently instruct the amateur as to the kind of flower he should choose when in bloom; but as he may probably wish to begin before he has an opportunity of seeing a collection, he must trust to a respectable dealer for his first few plants. We suppose these to come, as they generally do, very small and poorly rooted; but if he be fortunate enough to get good strong plants in pots, he will be much forwarder. The first thing to look to is the bed or border in which they are to grow. If it is intended to shade them on all proper occasions, it may be in any open space in the garden; but if not, they should be planted where the sun does not shine the three or four hottest hours of the day. If this bed be composed already of good loam, let there be six inches of good thoroughly rotted cow dung laid all over it, and well forked into the top eight or ten inches of the loam; and this can only be effectually done by repeatedly working it with a fork, and once or twice digging it over. If there be no proper stuff, have the mould dug out one foot deep, and fill it up with two parts good sandy loam, and one part cow dung rotted into mould, or for want of this, a mixture of half ordinary dung and half leaf mould; and if the latter cannot be had, all dung must be used, but in no case must dung be used until it is perfectly rotted into mould. Of course, these must be well incorporated. In this bed must the plants be placed not less than six inches apart, and the best time to plant them is April or October—in the former case there will be no frost to hurt them, and in the latter there is time to get established before the winters set in. If the plants are long, pinch out the tops, that they may throw out side branches. If short and bushy, they may be left as they are. Nothing better can be done for them, than throwing a little loose litter over them, to protect them from hard frosts, and to pick off all the blooms that come before the plants are well established; for as the blooming un-

questionably takes away the strength of a plant, flowers should not be allowed to perfect themselves until the plants are strong enough to bear them well. The flowers will in time come large, and fine in color. Advantage should be taken of the first side shoots that can be spared without injuring the plant, and if these are carefully taken off close to the main stem, they may be struck under a hand glass in a shady border.

"The cuttings should not be longer than two inches; and to prepare them for striking, the leaves should be taken off halfway up. The compost to strike them in must be the same as the bed in which they grow. Let the hand glass be about the size that will cover the quantity to be struck, and not more; let the place be well dug, and the lumps well broken. Rake the surface smooth, make a mark the size of the hand glass, by pressing the edge of it on the mould; plant the cuttings down low enough to cover the inch that is stripped of the leaves: they need not be more than an inch apart, and the mark made by the edge of the glass will show how to keep them within the space. The best way to put in the cuttings, is with a small bit of smooth twig, or the point of a skewer. Water them to close the earth about them, and cover them up, shading them from the sun, if any should reach them, and water them occasionally, for they must never be dry. It will soon be seen, by the growing of the cuttings, when they are well rooted; but all bloom buds must be picked off as soon as they appear. This system of taking the side shoots from the principal bed, should be pursued as long as the flowers keep good; and when they begin to get smaller, cut them in close, and let them grow again. But, in the mean time, prepare another bed to receive your struck cuttings; for it is only by a constant succession of young fresh struck plants, that you can hope to keep up the size of the flowers. It is probable that the old plants which have been cut in may grow again, and throw good flowers; but if not, dig them up at once, and throw them away. It cannot, however, be too strongly impressed upon the mind, that the entire dependence must be on young plants, and therefore no opportunity should be lost of taking cuttings, whenever they can be spared, from the plants in flower. Those who sell Pansies will, instead of throwing away old roots, part them, and plant out the pieces. If the plants are so treated before they degenerate too much, they may turn out well; but no plant will throw a bloom so strong as those which have been recently struck, and are well rooted and established. When Pansies are to be grown in pots, the compost should be the same; the pots should be thirty-two to the cast; the crocks with which they are drained should reach one-fourth up the pot, and the plants should be potted from the border where they are struck—they must be watered well to close the soil about the root, and be placed in the shade until they are established. If you have a common garden frame and light, they should be placed in it, and shut down close a day or two, and well shaded with mats or cloths. Picking off the blooms until the plants are established, and also pinching out the heart of the main shoot, to encourage the side branches, should be attended to as much with your new plants, as with the first you have; and, in short, Pansy-growing must be a constant succession of bed-making, cutting back, striking cuttings, and replanting, the whole year round. When old plants are removed, the bed must be dressed two or three inches thick with cow dung, or the dung of an old melon bed, rotted into mould, or leaf mould, well dug into it and mixed, to keep up the proper degree of nourishment for the new plants, so far as regards the management of known good varieties.

FROM SEED.

"The very best flowers that can be purchased, ought alone to be admitted into collections, and therefore it cannot matter how the seed is saved; but if the collection be more general, it is better that half a dozen plants of the very best varieties, according to the properties laid down by us in the early part of this work—that is to say, such as are round, thick, flat, smooth-edged, and well colored. Let those be placed, if possible, in a part of the garden where there are no others; let them be cultivated with

the greatest care, as if they were for showing, and let the best of the flowers only be left for seed. This must be watched daily that the pods may not split, and the seed be lost, yet it must be ripe. Half a dozen of the pods, from the best flowers of each plant will be enough; for as the flowers get smaller, the seed will be worse. Let the pods when gathered, be placed in the shade to dry, taking care that they are in a deep dish or box, to prevent their flying away when the pods burst. The best time to sow seed is May, because they will bloom before the summer passes. It should be sown thinly, in pans of compost, similar to that in which the plants grew, and but just covered with mould; they must be watered occasionally, and will be best under glass; if there be no frame, it may be placed under a hand glass. As soon as they are large enough to plant conveniently, let them be planted in beds similarly made to those for matured plants; but if it be in an open space, they must be shaded altogether until they have established themselves, after which they need only be shaded during the few hours of the hottest part of the day. They must be kept exceedingly clear from weeds, and regularly watered, if the weather be dry long together. As they bloom, throw away every one that has not some strong recommendation, looking more, however, to form than color; and mark those which you intend to keep, but discard at once all those with their flimsy petals, ill-shaped flowers, notched or rough edges, cloudy stained indistinct colors. If there be any really good flowers, treat them as you are directed with purchased plants—that is, increase it by cuttings; and besides the ordinary way of doing it, cut the plant back early, that it may throw up side branches in more abundance, and even part the plant itself, if necessary; as fast as the cuttings get rooted, treat them all as you did the old plant, until you have as many plants as you think proper; but generally, if it be really good, it ought to be propagated very largely, so that a good stock may be provided before the variety is let out.

CAUSES OF FAILURE.

"Among the causes of failure with young beginners there are two, which ought above all things to be avoided. The first is removing plants from light soil to that which is stiff; the other is removing them from stiff soil to that which is light. The only way to avoid the evil is to wash from the roots all the old soil, and plant it in the new very carefully, that the earth may be well closed about the fibres. If a plant be brought from light soil, and is planted with a ball of earth about it, the light soil is confined by the heavy, which forms a complete hard wall round about it, and the plant is infinitely worse off than if it were in a pot; the water which is given to it cannot run off freely, and the roots will often rot, and the plant gradually dwindles; on the other hand, if there be not a proper supply of moisture, the stiff soil becomes baked, the root cannot penetrate it, and therefore dies or starves into a bad habit. If, on the contrary, the ball of earth about the roots is stiff, and it is planted in light soil, the water given to it does not penetrate the ball, but runs away directly through the light soil, and in a few days, the moisture being completely absorbed by the surrounding earth, the stiff ball will become baked hard, and the plants very shortly feel the effect. We have seen the effects on both very frequently, and particularly when the mismanagement has occurred to seedlings. Most raisers of seedlings are too careless about where they plant them out; they fancy that they may put them any where till they see the quality; and they think that where they find a good one, it is very easy to remove it into a better situation; so indeed they might; but on changing the soil, the entire root should be cleared of the old stuff, and the plant should grow entirely in the new. Perhaps the very best seedling that ever was raised, was lost entirely by a change from a heavy but rich loam, where it was growing well, to a light rich soil, made up on purpose for it. The very object of the grower in removing a large ball of earth with it, so as not to disturb the roots, was the cause of its dwindling, even till the constitution of the plant was destroyed; when, lest it should be lost, two very celebrated growers were supplied with cuttings, but it never recovered; and when the old

root was taken up, the ball of earth was baked hard; not a single fibre had come through into the good light soil, and the variety was lost. A few persons may remember the flower, which was a deep purple, very round, as thick almost as a bit of velvet. It was called the Metropolitan, and was exhibited twice—once at the Red Lion, Hampton, and the second time in Mr. Flanagan's window; and Mr. Wakeling took a sketch of one, though not the best bloom. One of our most successful growers offered £10 for the seedling plant before it was removed; and notwithstanding all the fine flowers which have been raised, we may safely call the loss of the Metropolitan a serious disappointment to the growers of the Pansy. Since this occurrence, we have seen many very good collections suffer much from the change of soil, without noticing what was about their roots when they were bought in, and acting accordingly.

"There is another cause of great failure, which many growers have not noticed even up to this time. It is not an uncommon thing to see in a bed of Pansies, plants in full health one day, and dead down to the surface the next. We have often heard this attributed to an attack from some grub, particularly as the growers, on looking to the stem, find, as they fancy, the inside hollow, where the grub has eaten away the inside. This is, in general, pure fancy. The stem of the Pansy is naturally hollow; but in nineteen cases out of twenty, the enemy is the wind. In very gusty weather, if the bed is exposed, many of the plants may be seen blown all on one side at every gust, and when the gust is over, fall back into its place. If this occur, when there has been recent moisture, either by watering or rain, this constant bending backwards and forwards bruises or breaks the single stem, by which even a large spreading plant is held to its root; and we have seen, upon an average, after a windy night, a fifth, perhaps, of the number withered the next morning, and either broken quite off, or hanging by only one side of the stem, which being hollow, may be seen to have the appearance which a pink has, when the wireworm has gone up the very heart of the plant. The best preventive is to have the bed where it is sheltered from the wind; but if this cannot be, the next best is to peg down the principal side branches with hooks made of fern, or birch twigs, which must be cut like a hooked walking stick; this prevents the wind from blowing up one side of the plant, by which it must suffer, even though it be not actually broken.

POT CULTURE FOR SHOW.

"We hope and believe that the Pansy will, hereafter (though perhaps not directly) be shown in pots; and with this impression we add a few instructions for a mode of culture, adapted to show off the plant as well as the flower. We have already given directions for pot culture, but that is only when pots were to be a substitute for growth in the ground, and when the flowers were to be cut from the plant; we accordingly directed the very first potting (from the cutting bed where they were struck) to be in size 32-pots; where, however, the pots are to be shown, it is necessary to obtain a large quantity of bloom and a bushy handsome plant. In this case, the struck cuttings must be first placed in 60-sized pots, and the top of the plant must have the leading top pinched out; thiswill cause side branches to come out; and if any one of these take the lead, and grow stronger than the others, it must be checked by the same means. All bloom buds must also be picked off. They must be constantly watered, that they may not be distressed for moisture, for they are very differently situated from those in the open ground; and they must be shaded from the heat of the sun, whenever it is strong, though the morning and evening sun is beneficial. As soon as the roots become matted to the sides of the pots, they must be changed for size 48; and the plants by this time should be bushy and handsome. The blooms may now be allowed to come forward; as they are opening, instead of plain water, give them liquid manure, which should be decomposed cow-dung—say one quart of the decomposed dung in two gallons of water, stirred up well, and be allowed to settle for half an hour. It is not that the soil is in want of nourishment, being a great part of it dung, but the roots, which take in the greatest portion of nou-

rishment, are now at the sides of the pot, and water rather washes that away than draws it, and it is better for the plant that it should have it in the water, the greater part of which will pass down the sides of the pot among the roots. With regard to the time of year for this culture, it rather depends on the period of exhibition than on the season, for the Pansy can be got in perfection at almost any time, and especially in pots; because as these can be kept in frames blooming all the winter, there is no difficulty about it. But succession is as important with this as with open air culture, and therefore they ought to be potted in March, April and May, to succeed each other, and when they have done their office they may be consigned to the border or bed, either as they are, or cut back, but generally they will be gay out of doors, when they are turned out from the pots, and bloom fresh without being cut back. We have said nothing about propagating by layers, chiefly because we set our faces against it altogether, for reasons pretty well explained at the beginning. They do not make such good plants as the side shoots. Pot culture may be conducted in frames or out of doors, but all plants in pots, when out of doors, get dried by the wind, and heated by the sun, unless plunged up to the rim, and they are apt to push roots through the bottom of the pots into the earth, and they then receive a check upon removal.

"The properties of the Pansy have been already officially announced and acknowledged by most, if not all floral societies. We know of no exception; but a few remarks on the advantages of each separate point will not be out of place. It seems conceded on all hands that form is the first consideration in all flowers, and in the Pansy the circular was insisted upon as the most desirable, even when the attainment of it seemed impossible. However this may have been objected to in the first instance, on the ground of its being unattainable, it was evidently founded on a sound judgment of what would appear the most rich and beautiful; and it was obvious that the nearer a flower could be brought to a rich and beautiful form, the better it must be, whether it could or could not be produced quite in perfection. Now it is impossible to conceive any thing more silly than to set up any distinct form short of perfection, for then indeed would it be setting a limit to improvement—when this form had been produced, no pains would have been taken to surpass it, and if by any chance it had been surpassed, there would have been at once a difference of opinion. All who had been led to believe that a particular form was a criterion of a good Pansy, would have maintained that those which were of that form were best; while all persons of taste, who saw the increased beauty of the one which surpassed it, would have condemned the established rules, and the result would have been two sets of laws to govern the choice of a flower, and endless bickerings among the growers and judges. For this reason, it was necessary that the person who laid down the test of a good flower, should know what would be the most perfect form, and at once to fix upon it, without reference to whether it could or could not be attained. There is the greatest proof of the correctness of this view, in the actual fact, that the circular form has been so nearly attained, that the horticultural world has been convinced long since of its superiority over any other that imagination could suggest. Another point required by the (we must say) dictator in these matters, was the thickness of the petal, a property which speaks for itself—the firmness of the flower—the richness of the surface—the strength of the color—and the permanence of a bloom, whenever the petals are thick, are so conspicuous by comparison with a thin one, that there needs no argument upon the subject; for a thin petal is flimsy, and curls up soon—there is no firmness to keep its form; the colors are poor, and the surface is invariably like paper instead of velvet. Smoothness on the edge is a quality which is constantly recognized by every person of taste. There is nothing which so completely spoils a flower in the eyes of every body, as notched, or sawed, or rough uneven edges—the bloom looks mean and untidy, as if it were gnawed by vermin—compared with one which is the reverse, it is, even to an indifferent person, worthless, let its colors be what they may; and the principles on which all real good properties should be

founded cannot but be sound when this is the case. How many pretty varieties are there spoiled by the common but mortifying blemish of an indentation in the under petal? and what is there can make up for it? So far as we are concerned, there is but one consideration that would make us look at one a second time, and that is the chance of its being a temporary instead of a permanent blemish. It does happen, that when the bloom of a Pansy is opening, the very spot on which this blemish occurs is the first exposed, and therefore does occasionally meet with a check, which actually causes the indentation, when it does not really form a permanent feature in the flower.

"This would always make us unwilling to throw it away, until we had ascertained beyond a doubt that it was a permanent fault. The next property which seems to have been set down as indispensable, is that the bloom should be flat. The only people at all inclined to quarrel with this, are the artists, who for the most part seem quite unhappy, if they may not show their dexterity by curling a leaf or twisting a petal; a very poor daub may be made interesting to the vulgar, by the touch which shows a deformity; but where the artist has nothing to assist him, and must place a specimen face to face with the spectator, representing it perfectly flat, without a wrinkle, that shall afford him the clap-trap of strong light and shade, he has his work to do in giving proper effect. Still, those who see one flower hollow or crumpled, and the other perfectly flat, will not hesitate an instant in choosing the latter. Thus, so far as we have gone yet, the properties are proved to have been founded on principle.

We come now to a property which relates to color and not form. It is said that the two upper petals must be uniform, be the color or the disposition of it what it may; that the two side ones should be also uniform, and the under petal be the same ground color as those on the side. This led to a good deal of controversy, or rather to difference of opinion—for those who disputed it were not bold enough to dispute it in writing. That this, however, banished many flowers from choice collections is certain, and that it affected the sale of new flowers, intended to be held up as good ones, is not less true. Mr. Thompson of Iver, the most extensive raiser of seedlings at the time, disputed the propriety of the distinction, and held that the bottom petal might be different from the other without disparagement. This requires no more pains to controvert than any other of the notions which have been entertained by inexperienced or interested persons. In very many varieties the lower petal has a yellow tinge, while the two side ones are white. It is impossible to conceive how mean, poor, and imperfect, one of this description appears in comparison with flowers which have but one pure white or yellow in all three petals; and it is not long since we saw some of May's and Cook's favorite flowers with pure white grounds, compared with others with two colors, and heard May himself—now by far the largest grower and raiser of the Pansy—admit, unequivocally, that it was almost as important a point as any other property; and but a few weeks before, Mr. Thompson had his own flower, Eclipse, pointed out to him as the best yellow ground, and confessed, most reluctantly, its superiority to every flower which had two shades. It is in fact, only necessary to compare the flowers which are perfect with those which are not, and the brilliance of the one, and the dulness and patchy meanness of the other, will forcibly strike the most inexperienced grower of the propriety of this once questioned but now universally admitted point.

"We believe we have now gone through the leading properties of the Pansy, not because the gardening world were unacquainted with them, but for the purpose of showing that there were sound reasons for laying down every point, and that there is not one which can be questioned.

VARIETIES OF STYLE.

"Various are the tastes of the public as to the beauty of a Pansy. We like the following, fig. 70.

"The next, fig. 71, is a very different style. but is quite as pretty as the last in the eyes of many people. The bright band all round the top petals has been seen, both white and yellow, to ill shaped flowers.

"It will be seen that the principal features

Fig. 70.

are adhered to; the two top petals are alike, the two side ones are uniform, and the bottom is consistent with them. The ground

Fig. 71.

colors might be deep yellow, light yellow, sulphur color, straw color or pure white. We should not quarrel with any body's taste as to colors, so that there were not two ground colors on the three lower petals. The different varieties given here, are merely to show that scarcely any flower exhibits such perfection and so great a contrast; imagine all the different colors found in the Pansy to be applied, one after the other, to flowers thus marked, yet there is nothing at all improbable in the attainment of such marks in every color that we have distributed among them. How different would all these marks appear under different circumstances. Suppose one had them in dark blue, another chocolate, a third purple, a fourth light blue, and one set with the ground color yellow, and another with white. The variety would be endless. There is, however, great room for improvement among the Pansies now in cultivation.

Fig. 72.

"The prevailing faults are flowers long instead of round, bottom petals indented: the edges rough, the lower petal tinged or patched with yellow, while the side ones are white. We do not complain of the bright spot of yellow which may frequent-

Fig. 73.

ly be found within the rays or stripes, for it is only a blemish when it reaches beyond the eye. We ought to observe, that except the first figure, which is a fair representation of the flower which was substituted for

Robin Adair, the figures are ideal, and are merely intended to show some of the leading figures into which the colors break in different varieties. To extend this variety is the object of cultivation; and when we look to a bed of seedlings, and find hardly two alike, we may set down the Pansy as one of the most encouraging of the flowers to raise from seed; and we should like to hear of private growers who can attend to it, commencing industriously a task which offers so much gratification.

AN EXCELLENT NEW VEGETABLE.

BY LEVI BARTLETT, WARNER, N. H.

To the Editor—*Dear Sir:* As the following communication respecting a vegetable of the cabbage family, new in this country, may interest your readers, I send it for the columns of The Horticulturist.

Respectfully yours. Jos. Breck.

Boston, Nov. 10, 1846.

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J. Breck, Esq.—*My Dear Sir:* In a package of seed, I received from you last spring, there was one paper marked "Couve Touchada; a delicious vegetable." I sowed the seed at the same time I did several kinds of cabbage seed; the seeds came up well, but all my plants suffered badly, while in the seed leaf, from the small black fly. What of the several kinds escaped, were transplanted at the proper time. The "Touchada" exhibited in its appearance no material difference from common cabbages. Sometime in July I wrote to you stating that fact, and making inquiries of you respecting this "delicious vegetable." Your answer was, that "you knew nothing about it; your seedsman in London forwarded it, *marked* as upon the paper in which I received the seed."

I suppose from that, it is a new plant in this country. Since I received your letter, I have seen some notice of it in the Mark Lane Express of May 18, 1846. In that paper, in answer to the inquiries of a correspondent, who wishes to know the "exact difference between broccoli and cauliflower," there is a great variety of cabbages named, and among them is the "*Couve tronchuda* or Portugal Cabbage," which, I presume is the kind you sent me, and it should have been written *tronchuda*, not *touchada*. [This is the correct continental term.—Ed.]

I had about fifty plants; they were set about two and a half feet apart. They grew very rapidly, and I soon found they were too near; in a rich soil, from four to five feet distance would be near enough. The leaves are very large, as also the leaf stalk, and it is very white, and extends into the middle of the leaf in a palmated form, and gives the leaf a very unique appearance.

In consequence of the severe drouth we have had, they have not much of a head, like a cabbage, (if they ever have any,) and not thinking them of much value, I gave many of them to my cows, before I had any of them cooked, which I now very much regret. A few days since, I took a quantity of leaves to cover over some potatoes that I was steaming for my hogs, and found the large leaf stalks nearly the size of my wrist, after being steamed, were quite soft and pulpy, like asparagus. Since then I have had some of the open loose heads cooked, the same as cabbage, and find they are most fully entitled to the appellation of a "*delicious vegetable.*" And to my taste, and that of my family, we prefer this "Portugal Cabbage" to any thing of the cab-

bage kind we have ever eaten, not excepting the broccoli and cauliflower.

It is an old saying, the proof of the quality of the "pudding is in the eating of it," and in accordance with your wish, I forward you a sample, hoping they may arrive safe, and prove as agreeable to your taste as they have to mine.

I also received a paper of seeds, marked "German Greens, beautifully curled," part of which I sowed on a deep rich sandy loam, and I think it the very best plant for greens that I have any knowledge of. I had about forty plants. The leaves much resemble those of the sea-kale, abundant, very curly, and succulent. I have had them cooked, at the same time with beet leaves and other kinds of greens, but the German Greens have, with us, the preference over all others. They bear *plucking* remarkably —take off all the leaves but a few small ones at the top or crown of the plant, and in a few days there will be a new supply, which may be kept up through the whole season. I think it must be one of the very best plants to supply a market with greens. I shall let a part remain where they grew, and take up a part for the purpose of setting them out next spring for early greens.

Of the several varieties of broccoli and cauliflower seeds you sent me, some of them promised to be remarkable specimens, as the leaves were a yard in length; but from the 25th of July up to the 25th of October, we have scarcely had rain enough to lay the dust, so that very few of them flowered, and they manifested too strong a disposition to shoot up into blossom branches, and run up to seed. Most truly yours.

LEVI BARTLETT.

Warner, N. H., Nov. 2, 1846.

Description of a Cheap Vinery for Foreign Grapes.

BY THE CORRESPONDING SECRETARY OF THE NEW-JERSEY HORT. SOCIETY.

DEAR SIR—In compliance with your request, I have obtained permission of CHAS. CHAUNCEY, Esq., to give you a description, for publication in the Horticulturist, of the vinery in his garden in Burlington, the success of which has proved clearly that the means of raising the finest foreign grapes are within the reach of any man who has a garden and a few hot-bed sashes.

The vinery in question is, in fact, nothing more than a large hot-bed frame of rough boards, the back wall being a board fence about ten feet high, the front three feet high, the sides sloping to it, and rafters across of sufficient strength to support the hot-bed sashes. The whole structure was put up by the gardener, Mr. JAMES MCKEE. and might be built by any farmer out of whatever stuff might be most easily procured. The vines are planted as in any vinery; that is the front row of vines have their roots outside, and those against the back wall, inside the house.

The main point of the discovery, however, which Mr. MCKEE has reduced to practice, is, that he uses no other glass than the sashes of his hot-bed frames, which are laid on the rafters of the vinery, after they are no longer wanted on the hotbeds, say from 1st to 10th of May. They are thus, you will perceive, turned to account at a season when they would otherwise be quite useless. During the winter, the house is left entirely open, which in this latitude may be done with safety. If necessary, the vines might be laid down and covered,

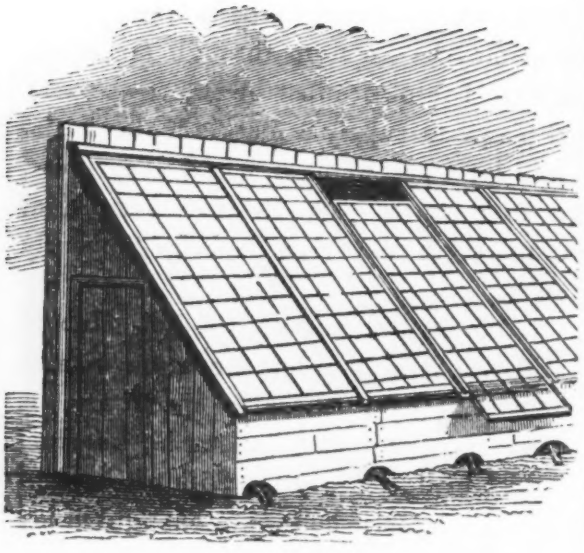

Fig. 74. *A Cheap Frame for Grapes.*

or the house covered with boards during the winter; but as Mr. CHAUNCEY's garden is in a sheltered situation, the vines are found to require no protection.*

The sashes are not made to slide, and the house is only aired by the door, or by inserting bits of wood under the lower ends of the sashes so as to raise them an inch or two. But it is one of the peculiarities of Mr. McKEE's culture, that he gives *very little air*, and *no water*,† as his vines are never showered. His vines are mostly Black Hamburg and Chasselas, and are five years old. They have borne abundant crops for two seasons past, and the grapes have received premiums at the exhibitions of the Pennsylvania Horticultural Society, both last year and the present; and I can assure you, from personal inspection, at various times during the past season, that the growth of the vines has been remarkably vigorous and healthy.

I cannot doubt that this discovery is destined to prove of great importance, because it proves clearly that market gardeners and others, who have generally a quantity of hot-bed glass, which is stowed away and utterly useless during the summer, may make use of it in this way for their own profit, and for the benefit of the public at large.

The frame may, of course, be made of whatever size the proprietor chooses, and the management of the vines may be the same as in any other house. Mr. CHAUNCEY's house is about twenty-five feet long, by twelve wide; the back wall, which, as I observed before, is formed by a tight board fence, is about ten feet high, and the front three feet. Very truly yours.

H. W. S. CLEVELAND.

Oatlands, Burlington, N. J., Nov. 2, 1846.

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OBSERVATIONS.—We have had such excellent accounts of this *cheap mode of growing foreign grapes*—a great desideratum to thousands in this country, that we have much satisfaction in laying Mr. CLEVELAND's letter describing it before our readers.

Mr. McKEE's mode of managing his vines is highly successful. The size of the structure, as our correspondent remarks, may be varied at pleasure. Our cut shows one narrower than the one described. We think, perhaps, it would be better, for the sake of simplicity and economy, to make the house *narrower*, and dispense with the row of vines inside. This would obviate altogether the necessity of watering the border inside. The border for the front row of vines, we would make entirely outside, and conduct the stem through as shown in the figure. This border should not be less than ten feet wide, and two and a half feet deep, and of course trenched, and thoroughly enriched before planting the vines.—ED.

* We should advise that the vines be protected after the autumn pruning is completed.—ED.

† I mean on the foliage, the roots of course are watered.

NOTES AND QUERIES ON LAWNS.

BY A NEW-BEDFORD SUBSCRIBER.

Dear Sir—I read your editorial in the last Horticulturist, upon lawns, with much interest, and notice you recommend a mixture of Red Top and White Clover, without reference to the soil, whether it is wet or dry.

Loudon, in a little work upon "Gardening for Ladies," published 1841, recommends the Crested Dog's-tail Grass, *Cynosurus cristatus*, as the best for sustaining drouth and heat, as its roots penetrate so deeply into the ground as to keep its blades green, while all grasses around it are quite brown from being dried up.

"The Hard Fescue Grass, *Festuca duriuscula*, is another kind which stands drouth well, and is a fine dwarf grass, and springs early."

"The Fox-tail Meadow Grass, *Alopecurus pratensis*, one of the principal grasses in rich natural pastures, should always form *one-fourth* part of seeds for a lawn."

"The Sweet-scented Spring Grass, or *Anthoxanthum odoratum*, grows best in deep moist soil; but it is worth sowing in all situations for its fineness, its dwarf growth, and for its habit of continuing to vegetate and throw up fresh stalks nearly all the year —very fragrant in new hay."

"The Common Meadow Grass, *Poa pratensis*, is good for Lawns, as, though of slow growth, it has creeping, permanent roots."

"The Short Blue Meadow Grass, *Poa cerulea*, may be added, for its deep blue tint, which gives a richness to the general color of the turf, and it sustains no injury from drouth."

Loudon goes on to say, the Meadow Fox-tail is very often bad, only one-third of the seed germinating. "Sow of the mixed grasses about four bushels per acre, but if an immediate effect is wanted, add one and a half bushels of the common White Clover." These directions are intended for an English climate, and what would stand an an English drouth well, might perhaps be burnt to a cinder here, exposed to our unclouded sun. As my grounds suffer from drouth, being on a light sand and gravel subsoil, I wish to ask if you think the White Clover and Red Top more suitable for dry places, than the above grasses, recommended as particularly adapted for their properties of standing drouth in England. I am subsoiling and trenching my ground, and intended to let it lie for a year before laying it down, to kill, if possible, the grub, which has destroyed the roots of the grass. Can you recommend any application to the surface for the latter purpose?

Is there no danger in subsoiling and trenching a soil already too dry, that it will increase the difficulty, by allowing the moisture and liquid manure to pass below the reach of the roots? Perhaps, if not asking too much, you will favor your readers with a few simple directions for the best mode of treating an acre or two of ground about a house in grass, with clumps of trees, etc., the grass wiry, scraggy, coarse, surface uneven and full of *grub-worms*, now just ploughed and subsoiled—a fine velvety lawn required. Very truly yours.

A Subscriber.

P. S. If the above grasses are, in your opinion, desirable, do you think they can be had at our nurseries? Loudon says the best place is at *Cormack's Nursery*, in New Cross, London. In Boston, I could not find that our nurserymen knew any thing of the Fescue or Crested Dog's-tail Grass.

Remarks.—The grasses referred to by our correspondent, are favorite lawn grasses in England. We have seen them tested in two cases only in this country—both on very light, dry, sandy soils; and in these they did not prove to have greater power of resisting the drouth than the Red Top and White Clover. They were not, however, deep or trenched soils, and we should consider them, especially the Crested Dog's-tail Grass, worthy of a further trial here, with that advantage.

"Common Meadow Grass," *Poa pratensis*, is also a native of this country, and is well known at the West as the "*Kentucky Blue Grass.*" It is said to make a fine lawn in light, rich, deep soils.* The Hard Fescue Grass and Sweet Vernal Grass are also natives of this country.

We would recommend a trial of a mixture of Crested Dog's-tail Grass, Kentucky Blue, or Common Meadow Grass, and White Clover, for the light sandy soil in question.

The *grub*, of which our correspondent complains loudly, is easily destroyed by the application of salt, at the rate of six bushels to the acre. Let the land be stirred, and one half applied now, and repeat the same process in the spring, and this insect will disappear, and the soil will be greatly benefitted for the growth of grass.

There is no danger of making a light soil too deep. But if the subsoil is meagre and poor—gravel, for instance, use the subsoil plow to *deepen* and *stir* it thoroughly rather than *reverse* the soil and subsoil much by trenching. The deeper the soil, the deeper the roots will extend, and the less susceptible will they be to surface drouths. A moderate annual top-dressing of salt—say three bushels to the acre, will improve *wiry* lawns, on light soils, more than any other application. The salt not only acts as a manure, but gives the soil *greater capacity for attracting and retaining moisture.* Next to this we must repeat our recommendation of the very frequent use of the *roller.*—Ed.

* Seed of this grass may be had at Allen's Agricultural Warehouse, New-York. As there is little demand for the other lawn grasses, they are rarely to be found at the shops of our seedsmen, but may be ordered through them of Charlwood, or any of the leading English dealers in seeds.

Salt Cures the Diseases of the Plum.

BY DR. S. A. SHURTLEFF, BOSTON.

Dear Sir—On looking over your valuable periodical, I discover my name referred to by Mr. J. M. Ives of Salem, and also by the editor, in connection with the application of salt to the Plum tree. As this is a subject interesting to all cultivators of fruit, I beg leave to offer you some few notes of my experience relating to it.

In 1839, my plum trees were covered with the black fungus, commonly known as the *black knot or wart.* At the same time they cast their fruit, so that I did not get specimens enough to decide the genuineness of the kinds. Observing in several gardens that had been made on salt marshes, that the plum trees, in every case, were unusually vigorous and healthy; that they produced full crops, and did not cast their fruit; I was led to the conclusion that salt was a preventive of the disease, and that it also destroyed the curculio.

The next winter I gave each of my plum trees a dressing of about two quarts of salt. I directed my man to put it

on in a circle, about twelve inches from the tree. [We presume, meaning that the circle of salt did not come nearer the trunk than twelve inches.—Ed.] It being salt that was the residuum of a pork barrel, I cautioned him not to put on the brine. He did, however, put about a gallon around one tree, and it killed it. The others blossomed well, and the fruit remained on the trees until fully ripe. In the spring I cut off all the fungi or warts, but put nothing on. The wounds healed up nicely, and from that time, I have been in the habit of putting on salt annually; and the only trouble now is, that my trees bear too much fruit, so as to destroy its fine quality, unless a portion is thinned out.

In 1840, I set out some trees, quite covered with the fungus or warts. I treated them in the same manner as just described, cutting the trees deeply wherever any disease was found, and the next year the wounds were all healed, and no excrescences have since appeared.

Last winter I omitted the application of salt. I have no fungus, but the fruit was more diseased than usual. The ensuing winter I shall therefore apply it again, as I am fully convinced that it is, if properly and judiciously used, a sure preventive of both the fungus and the curculio. I have examined the fungus, and in most instances, found a small grub or larva. Whether the disease was produced by the insect, or the insect resulted from the disease, (the warts in a young and tender state, affording the best place to deposit its eggs,) I will not undertake to say; but if salt will enable us to preven the disease, I think it is certainly a great boon to fruit-growers. Most fruit-growers like myself will probably be content to prevent disease, even if they are unable to look into all the secrets of nature, and understand its origin.

I have raised from seed several kinds of plums, one of which appears to me superior to any variety that I have ever eaten. It is about the size of the *Lombard*, a free stone, of a lilac color, melting, saccharine. The stone itself is about the size of that of the Bigarreau cherry stone; the tree with me is not subject to any disease, and bears admirably every year. It is very luxuriant, growing some years from six to eight feet. I consider it a great acquisition to any collection of plums.

S. A. Shurtleff, M. D.

Spring Grove, Brookline, near Boston, Oct. 31, 1846.

THE STRAWBERRY CONTROVERSY.

BY HENRY WARD BEECHER, INDIANAPOLIS, Ia.

[The following very able article we reprint from a late number of the *Western Farmer and Gardener*, at the request of several of our subscribers.

Mr. Hovey, whose course in relation to this subject is so ably handled by this writer, is the editor of a gardening magazine, published for some time in Boston. In that periodical, he attacks, from time to time, the opinions of those who differ from him, with an arrogance and presumption, which would scarcely be pardonable in writers of the world-wide reputation of Lindley or Loudon.

In the editor of a magazine, having the circulation of a few hundreds only, and who is only known to the public generally as the originator of a large strawberry, such a course

is only amusing. We have not, ourselves, supposed his remarks in any way worthy of serious attention, but since Mr. BEECHER, who is probably ignorant how little Mr. H. represents the views of any portion of the horticultural public, has chosen to look upon his opinions in a graver light, and has manfully defended Mr. LONGWORTH, we willingly give his remarks a wider circulation.—ED.]

.....

No man will deny, that in their cultivated state, strawberries are found, in respect to their blossoms, in three conditions: first, blossoms with stamens alone, the pistillate organs being mere rudiments; second, blossoms with pistillate organs developed fully, but the stamens very imperfect and inefficient; third, blossoms in which staminate and pistillate organs are both about equally developed.

There are two questions arising on this state of facts; one a question of mere vegetable physiology, viz., Is such a state of organization peculiar to this plant originally, or is it induced by cultivation? The other question is one of eminent practical importance, viz., What effect has this state or organization upon the success of cultivation?

Passing by the first question, for the present, we would say of the second that a *substantial* agreement has, at length, been obtained. It is on all hands conceded that staminate plants, or those possessing only stamens, and not pistillate organs, are unfruitful. Any other opinion would now be regarded as an absurdity. It is equally well understood, that pistillate plants, or those in which the female organs are fully, and the male organs scarcely at all, developed, are unfruitful. No one would attempt to breed a herd of cattle from males *exclusively*, or from *females;* and, for precisely the same reason, strawberries cannot be had from plants substantially male, or substantially female, where each are kept to themselves.

But a difference yet exists among cultivators, as to the facts respecting those blossoms which contain *both* male and female organs, or, as they are called, *perfect* flowering plants.

Mr. LONGWORTH states, if we understand him, substantially, that perfect flowering varieties will bear but moderate crops, and usually of small fruit.

On the other hand, Dr. BRINKLE, whose seedling strawberries, we noticed in the last number, MR. DOWNING, and several other eminent cultivators, adopt the contrary opinion, that, *with care*, large crops of large fruit may be obtained from perfect flowering plants. The question is yet, then, to be settled.

It is ardently to be hoped that, hereafter, we shall have less premature and positive assertion, upon unripe observations, than has characterized the early stages of this controversy. We will take the liberty of following Mr. HOVEY in his Magazine, between the years 1842 and 1846, not for any pleasure that we have in the singular yicissitudes of opinion chronicled there, but because an eminent cultivator, writer, and editor of, hitherto, the only horticultural magazine in our country, has such influence and authority in forming the morals and customs of the kingdom of horticulture, that every free subject of this beautiful realm, is interested to have its chief men of such accuracy, that it will not be dangerous to take their statements.

In 1842, Mr. LONGWORTH communicated an article on the fertile and sterile characters of several varieties of strawberries, for Mr. HOVEY's Magazine, which Mr. H., for subject matter, endorsed. In the November number, Mr. COIT substantially advocated the sentiments of Mr. L.; and the editor, remarking upon Mr. COIT's article, recognized distinctly the existence of male and female plants.

He, Mr. H., says, that of four kinds mentioned by Mr. C. as unfruitful, two were so "*from the want of staminate or male plants*," and "the cause of the barrenness *is thus easily explained.*" And he goes on to explain divers cases upon this hypothesis; and still more resolutely he says, that all wild strawberries have not perfect flowers; "in a dozen or two plants which we examined last spring, *some were perfect*, (the italics are ours,) having both stamens and pistils;

others only pistils, and *others only stamens;* thus showing that the defect mentioned by Mr. LONGWORTH *exists in the original species.*" He closes by urging cultivators to set rows of Early Virginia, among the beds for the sake of impregnating the rest.

Mr. HOVEY's next formal notice was exactly one year from the foregoing, November, 1843, and it appears thus: "We believe it is now the generally received opinion *of all intelligent cultivators*, (italics are ours again,) that there is *no necessity of making any distinction in regard to the sexual character of the plants when forming new beds. The idea of male and female plants*, first originated, we believe, by Mr. LONGWORTH of Ohio, is now considered *as exploded.*" Such a sudden change as this was brought about, he says, by additional information received during that year, by means of his correspondents, and by more experience on his own part. He says nothing of male blossoms and female blossoms, *which he had himself seen in wild strawberries.* Mr. HOVEY then assumed the theory, that *cultivation*, good or bad, is the cause of fertile or infertile beds of strawberries, and he says "in conclusion, we think we may safely aver, that there is not the least necessity of cultivating *any one strawberry near another*, (our italics,) to ensure the fertility of the plants, *provided* they are under a proper state of cultivation."

Mr. HOVEY now instituted experiments, which he promised to publish, by which to bring the matter to the only true test; and he, from time to time, repromised to give the result to the public, which, thus far, we believe he has forgotten to do.

His Magazine for 1844, opens as that of 1843 closed, and in the first number he says, "the oftener our attention is called to this subject, the more we feel confirmed in the opinion that the theory of Mr. LONGWORTH is entirely unfounded; that there is *no such thing as male and female plants*, though certain causes may produce, as we know they have, fertile and sterile ones."

Nevertheless, in the next issue but one, this peremptory language is again softened down, and doubt even appears, when he says, "IF *Mr. Longworth's theory should prove true*," &c. We, among others, waited anxiously for the promised experiments; but if published, we never saw them. The subject rather died out of his Magazine, until August, 1845, when, in speaking of the Boston Pine, a second fine seedling of his own raising, he is seen bearing away on the other tack, if not with *all* sails set, yet with enough to give the ship headway in the right direction. "Let the causes be what they may, it is sufficient for all practical purposes, to know that *the most abundant crops* (italics ours) can be produced by planting some sort abounding in *staminate* flowers, in the near vicinity of those which do not possess them." p. 293. And on p. 444, he reiterates the advice to plant near the staminate varieties. In the August number for 1846, p. 309, Mr. HOVEY shows himself a thorough convert to Mr. LONGWORTH's views, by endorsing, in the main, the report of the committee of the Cincinnati Horticultural Society. We hope, after so various a voyage, touching at so many points, that he will now abide steadfast in the truth.

We look upon this as a very grave matter—not because the strawberry question is of such paramount, although it is of no inconsiderable, importance; but it is of importance whether accredited scientific magazines should be trustworthy, whether writers or popular editors should be responsible for mistakes entirely unnecessary. We blame no man for vacillation, while yet in the process of investigation, nor for coming at the truth gradually, since this is the necessity of our condition to learn only by degrees, and by painful shiftings. The first requisite for a writer is, that he be worthy of trust in his statements. No man can be trusted, who ventures opinions upon uninvestigated matters; who states facts with assurance which he really has not ascertained; who evinces rashness, haste, carelessness, credulity, or fickleness in his judgments. The question of perfect or imperfect blossoms depends upon the simplest exercise of eyesight. It requires no measurements, no process of the laboratory, no minute dissections or nice calculations; it requires only that a man should *see* what he *looks* at.

When a boy, playing "how many fingers do I hold up," by dint of peeping from

under the bandage, we managed to make very clever guesses of how many lily fingers some roguish lassie was holding in tempting show before our bandaged eyes; but some folks are not half so lucky with both eyes wide open, and the stamens and pistils standing before them.

If such latitude is permitted to those who conduct the investigations peculiar to horticulture, who can confide in the publication of facts, observations or experiments? Of what use will be journals and magazines? They become like chronometers that will not keep time—like a compass that has lost its magnetic sensibility—like a guide who has lost his own way, and leads his followers through brake, and morass, and thicket, into interminable wanderings. Sometimes the consciousness of faults in ourselves, which should make us lenient towards others, only serves to produce irritable fault-finding. After a comparison of opinions and facts, through a space of five years, with the most distinguished cultivators, east and west, Mr. LONGWORTH is now universally admitted to have sustained himself in all the essential points which he first promulgated, not *discovered*, for he made no claim of that sort. The gardeners and the magazines of the east have, at length, adopted his practical views, after having stoutly, many of them, contested them.

It was, therefore, with unfeigned surprise, that we read Mr. HOVEY's latest remarks in the September number of his Magazine, in which, with some asperity, he roundly charges Mr. LONGWORTH with manifold errors, and treats him with a contempt, which would lead one, ignorant of the controversy, to suppose that Mr. HOVEY had never made a mistake, and that Mr. LONGWORTH had been particularly fertile of them. Thus, "Mr. Longworth's remarks abound in so many errors and inconsistencies, that we shall scarcely expect to notice all." "Another *gross assertion*," &c. Referring to another topic, he says, "This question, we therefore consider as satisfactorily settled, without discussing Mr. Longworth's conflicting views about male and female Keen."

This somewhat tragical comedy is now nearly played out, and we have spoken a word just before the fall of the curtain, because as chroniclers of events and critics of horticultural literature and learning, it seemed no less than our duty. We have highly appreciated Mr. HOVEY's various exertions for the promotion of the art and science of horticulture, nor will his manifest errors and short-comings in this particular instance, disincline us to receive from his pen whatever is good.

We hope that our remarks will not be construed as a defence of western men or western theories, but as a defence of the truth and of one who has truly expounded it, though in this case the theory and its defender happen to be of western origin. Whatever errors have crept into Mr. LONGWORTH's remarks should be faithfully expurgated, and perhaps it may be Mr. HOVEY's duty to perform the lustration. If so, courtesy would seem to require that it should be done with some consciousness that through this whole controversy, Mr. LONGWORTH is now admitted to have been right in all essential matters, and if in error at all, only in minor particulars; while Mr. HOVEY, in all the controversy, in respect to the plainest facts, has been changing from wrong to right, from right to wrong, and from wrong back to right again. We do not think that the admirable benefits which Mr. LONGWORTH has conferred upon the whole community, by urging the improved method of cultivating the strawberry, have been adequately appreciated. We still less like to see gratitude expressed in the shape of snarling gibes and petty cavils.

We will close these remarks by the correction of a matter which Mr. DOWNING states. While he assents to all the *practical* aspects of Mr. LONGWORTH's views, he dissents to some matters of fact and philosophy, and among others, to the fact that Hovey's seedling is *always* and *only* a pistillate plant. He thinks that originally it had *perfect* flowers, but that after bearing twice or thrice on the same roots, the plants degenerate, and become either pistillate or staminate. He says, "Hovey's seedling strawberry, at first, was a perfect sort in its flower, but at this moment, more than half the plants in this country have become pistillate.

Mr. HOVEY himself states the contrary,

on p. 112 of his Magazine for 1844. He denies that there are two kinds of blossoms to his seedling, and says, "the flowers are all of one kind, with both pistils and stamens, *but the latter quite short, and hidden under the receptacle.*" This is the common form of all the pistillate blossoms, and shows, in so far as Mr. HOVEY's observations are to be trusted, that at its starting point and home, Hovey's seedling was, as with us it now invariably is, so far as we have ever seen it, a pistillate plant.

POMOLOGICAL GOSSIP.

EVERY body knows—we mean every body that knows the difference between pears and pippins—that Boston is the focus or centre of what may be called the *pear-mania.* At the annual shows of the Horticultural Society there, between *two and three hundred varieties* of this fruit are exhibited—a larger number by one-half, than are ever seen at the great shows of London, Paris, or Ghent.

It is the ambition of every fruit-grower in the circle of ten miles about Boston, to possess all the newest pears. Every little cottage garden has its Bartlett and its Beurrés; and many amateurs annually import from France, Belgium and England, the last novelty of the nurserymen's catalogues, at prices where *guineas* count as frequently as *shillings.*

Boston has thus the credit of first introducing to this country many fine varieties of fruit at a much earlier date than they would otherwise have reached us. This precedence which she holds over New-York and other cities, is not owing to any superiority of climate and soil; for it is admitted that she is not remarkably fortunate in these respects; but to the taste, wealth, enterprise, and above all the rivalry, joined to the power of union, which exists among her citizens. In Boston, the intelligence and spirit of the citizens, always act *combinedly*, and thus effect much—witness her Horticultural Society. In New-York they always act *individually*, and thus effect little—example the "Farmer's Club!"

Now that such a vast collection of pears has been accumulated in the country, we naturally look to the Boston cultivators, as having most thoroughly and repeatedly tested them, for *some results.* Every year the tables at the HORTICULTURAL HALL groan under vast contributions of pears; but the thousands of uninitiated visitors are, besides what may be gained by feasting the eyes, not much the wiser. *What are the results? What are really the best sorts?*

These are the questions which the planting community are now beginning eagerly to ask; and they are queries, which we hope the Society in question is making preparation to answer in its future great annual shows, by *labelling* conspicuously, "FIRST QUALITY," all those varieties which the fruit committee, composed as it should be of the soundest pomologists in Massachusetts, shall decide to be worthy of that distinction.

In the mean time, it has occurred to us, that a beginning might be made, towards some general results in pomology, by opinions gathered from various parts of the country, and laid before the readers of this journal. It is only by a large contribution of facts and results, from practical men, that we can ever hope to attain any thing like a generalization of our knowledge on this subject.

Such thoughts as these passing through our mind, when we made a brief visit to Boston in September last, we had the curiosity to ask half a dozen of the most zealous

and experienced growers of the pear in that neighborhood, to commence the compendium of results, by answering the simple question "*which do you consider the three best pears*—early, middle, and late—supposing yourself confined to three trees?"

We passed our first night under the hospitable roof of the President of the Society, at *Hawthorn Grove*. Col. WILDER remarked that the question was difficult to answer, *because it was so simple*. He and many others have been, for years past, collecting and proving hundreds of sorts from all countries, and they had been so busily employed in testing, that little had yet been done in forming a *summary* of their experience. He frankly coincided with us in the opinion, that among the *hundreds* of sorts, with high sounding names, received from abroad, the really good ones could easily be counted by *tens*.

Col. WILDER has fruited this season over two hundred varieties of pears in his experimental grounds. He answered our question by naming the *Bartlett*, *Vicar of Winkfield*, and *Beurré d'Aremberg*.

On our expressing our surprise, that he should include the *Vicar of Winkfield* among so small a collection as three trees, he remarked that his high opinion of this variety was based upon a thorough trial of its good qualities, which were these—regular and great productiveness, never blowing off the tree, large, fair, unblemished fruit, and its remaining a long time in use. "True," he added, "the fruit is only second rate, but while it is of fair quality for the table, it is excellent for a long time for cooking." Altogether he considered it a fruit not to be dispensed with, in even so small a selection.

Mr. WALKER, the worthy chairman of the Society's committee on fruits, we unfortunately did not see, but we learn that his opinion as to the three varieties coincides with Col. WILDER's.

Our next visit was to Mr. OTIS JOHNSON, at Lynn. We can scarcely convey to our readers our sensations of delight, at the extraordinary perfection of this gentleman's *fruit-garden*. He is one of the most zealous and untiring amateurs, and we have, nowhere in America, seen a garden devoted mainly, as this is, to fruit trees, in higher order, and the trees themselves more perfectly managed. The pears are mostly dwarfs, many of them being trained in pyramid or in *quenouille* form, and all in the most healthy and satisfactory condition. We quickly saw that the knowledge of sound principles of culture here evinced, would produce results highly satisfactory in almost any soil or climate, however unfavorable naturally.

Mr. JOHNSON's answer to our question was, "*Bartlett*, *Louise Bonne de Jersey*, *Beurre d'Aremberg*." "The *Louise Bonne de Jersey*," he said, "is the most productive upon young trees of any pear I cultivate; and I think if I could have but three, I would be forced to include it; yet I may alter my opinion when the trees become older."

The persons we were next most desirous of questioning for results, were the cultivators at Salem, one of the surroundings of Boston most famous for its horticultural success.

At the *Pomological Garden*, the quiet and unpretending homestead of our late friend, that excellent pomologist ROBERT MANNING, we found every thing in excellent order, under the care of his sons. The elder son, Mr. R. MANNING, after some gardening chat, desired us to look among the numerous specimen trees in bearing, which we did with satisfaction. His answer to our inquiry was the following, "*Bartlett*, *Beurré Bosc*, and *Winter Nelis*." *Beurré Bosc*, Mr. MANNING could not but consider, on the

whole, one of the very best of autumn pears.

Our correspondent, Mr. IVES, whose garden joins Mr. MANNING's, and whose zeal and enthusiasm as a cultivator are well known, favored us also with his three select favorites, which are these—*Bartlett*, *Fondante d'Automne*, and *Winter Nelis*. "You may be assured," said Mr. IVES, "that no autumn pear surpasses the *Fondante d'Automne*;" whereupon he placed in our hands a fine specimen of this luscious fruit, to stop our mouth and our objections at the same moment. It was, as, indeed, we have always found this variety, truly delicious.

Our last pomological visit was to Mr. JOHN C. LEE of Salem. It was three years since we had visited his grounds, where we have always found a great deal that is interesting and instructive. We were now greatly pleased with the admirable management every where to be seen, the stock of new trees and plants imported from abroad, and the flourishing and healthy condition of all. The buckthorn hedges here, are perhaps the most perfect in the country, and particularly pleased us by the manner in which they were trimmed—in the shape of a perfect triangle or wedge, whose base was about four feet, and height about seven or eight feet.

Mr. LEE has tested a great many fine pears, but hesitated when called upon to decide at once upon *three*. He finally chose, as the three which his own experience would lead him to adopt—the *Bloodgood*, *Seckel*, and *Winter Nelis*.

There were several other gentlemen, experienced fruit-growers, about Boston, to whom we should have been glad to submit our *primary question*, but our limited time did not allow us to visit them.

Something, however, has, we think, been gained by our pomological gossip. We have at least ascertained for our readers *nine pears*, whose maturity is from early summer to winter, which are esteemed by the most experienced growers of this fruit about Boston, as the very best for that neighborhood, and we may add, for the whole sea-coast belt, of fifty miles broad, extending from Chesapeake bay to Maine. These are *Bloodgood*, *Bartlett*, *Louise Bonne de Jersey*, *Seckel*, *Fondante d'Automne*, *Beurré Bosc*, *Vicar of Winkfield*, *Winter Nelis*, and *Beurré d'Aremberg*.

The *Bartlett*, it will be perceived, is almost an universal favorite. This is owing not simply to its size and good quality, but also to its regular productiveness, joined to its invaluable habit of adapting itself to every soil, and bearing while the tree is yet very young. *Beurré d'Aremberg* and *Winter Nelis* are about equally popular as winter fruits—the former being the best bearer, and the latter the most luscious in flavor.

Some of our readers may expect that after having successfully solicited the contributions of the leading devotees of Pomona around Boston, we are bound to contribute something ourselves before closing the books.

We shall do this very willingly, if they will allow us what speculators call a *large margin*. We must beg to be allowed *two* answers, though we would not allow our respondents but one.

For all gardens to the east and south of us, we would recommend *Bartlett*, *Seckel*, and *Beurré d'Aremberg*. For all gardens to the north and west, *Bartlett*, *White Doyenné* and *Beurré d'Aremberg*.

ROOT GRAFTING.

BY F. K. PHŒNIX, DELAVAN, WISCONSIN.

I HAVE never seen in any eastern publication, what I consider by any means a full and accurate description of the best method of root grafting. And as this is now, so far as I know, decidedly the most popular method of propagating fruit trees, and in many respects as decidedly the best, it seems to me that too great pains cannot be taken to ascertain and establish the best mode of performing the operation. Root grafting is very applicable to apples, pears and plums—and I think is much the easiest way to work apples and plums; pears bud so easily that with any pear stocks, save seedlings, I should prefer budding. Seedling pear stocks I have never tried by grafting in the root and boxing as with apples, but I see no reason why they might not be used to as good advantage in that way as are apple roots—by grafting in which, as is well known, a great saving in stocks is effected. The following remarks apply particularly to the apple, as I have never tried grafting the plum or pear on their own roots, (though I have the pear several times upon apple roots,) in the winter and boxing them—but I have often root grafted them in the spring, and with the best success.

The roots for grafting must of course be secured in the fall, and should be fine, thrifty seedlings of at least two years growth, though *our* yearlings, which sometimes have roots nearly one-half an inch thick, make as fine trees as I ever saw. In preparing the roots for packing I always cut off the tops about six inches from the roots, in order to save room, and for convenience in handling them when grafting. The roots are packed in tight boxes in thick layers with moist earth amongst them, and between the layers; the boxes I keep in my cellar. The boxes for packing away the roots when grafted, I have 24 inches long, 12 wide and 5½ high on the inside, which need not be very tight, and will hold from 6 to 1200, according to the size of the roots and the closeness with which they are packed. When ready to commence operations, I take a quantity of the roots, as many as are wanted during the day, and after trimming off all the side roots quite close to the main root, say within ¼th or ⅛th of an inch, I proceed to cut them up in pieces from 3 to 4 inches in length—never longer, marking the upper ends of the roots if necessary, in order to distinguish them when cut up, and throwing the pieces into a pail of water. If desirable to cut very close, the upper piece need not have more than one inch of clear root upon it. In regard to size—I have often been obliged to use roots not larger than a pipe stem, and where they were thrifty and perfectly sound, and set out under favorable circumstances, they have done well, still I greatly prefer larger. When the roots are cut, they are then washed by stirring and turning them a few minutes in the pail and changing the water once—leaving them, when washed, in the water. I then take my scions, and after marking the name of the variety upon a little stake 8 or 9 inches long, (which I keep with them constantly, and in boxing put between the kinds,) I cut and prepare 2 or 300 grafts ready for setting and pile them up. The grafts I have from 3½ to 4½ inches in length, and with a tongue as in splice grafting. The cut or slant at the lower end of the graft, on which the tongue is made, should not with common sized scions, exceed about

half an inch in length for various reasons; nor should it on the root. When the grafts are prepared, the roots are taken from the water, and piled up with the upper ends all towards you. The roots, one by one, as I set them, are thus prepared with a tongue, and the grafts inserted. They are then spread out, so that the outside moisture may dry off in order to have the grafting wax adhere. This is made by melting and stirring together four parts rosin, one and a half beeswax, and one of tallow. I put it on warm, or while in a fluid state, and with a shaving brush, which is very neatly, quickly and safely done. It is not by any means necessary to have it perfectly tight —a little put on the side where the bark of the root and scion meet, and on the root where cut, is all that is requisite. Many, if not most of those who graft in the root, use waxed strips of cloth or paper, and some tie with strings, *using no wax*, but these in my experience are tedious and perfectly unnecessary operations. Last spring I set over 20,000 in the way I speak of, and with excellent success—indeed I have sometimes, when planting out from the boxes, taken out 500 without finding a single graft that had failed. After being waxed, the roots are ready for boxing. The box is first partly filled with fine earth, some of which is packed up against one end; I then take up some of the roots, and even the tops of a handful in my hand, and set them up slanting against the earth, beginning at the right hand side of the box, with the tops about two inches above it. In order to get the tops even and keep the tiers separate across the box, I use a thin, narrow strip of board, which reaches over the box and is placed behind every fresh tier whilst putting it in—and also a little punch to jam the earth down firm behind each tier and next to the box. After placing the row, the dirt should be worked amongst the roots and packed *snugly* against them. There need be no fear of disjointing them, unless they are handled very roughly. When the box is full, it is set away in a cool cellar, where the mice cannot get at it.

In regard to their freezing, whilst thus boxed up, I have had no experience, but I have it from a first rate nurseryman who has tried the experiment several times, that it does not injure them in the least, even if they freeze and thaw out two or three times during the winter—that is, if they are well boxed. I do not think I should like to have them frozen after they had started to grow much, nor should I care about risking it any way if it could well be avoided. When the boxes are exposed to the heat and light, and supplied with water, the shoots put out exceedingly rapid, and hence they should not be thus exposed till about two weeks before setting, otherwise they will grow so long and weak that it will shock them severely when planted out. They should be set as early in the spring as the ground will admit—though I have known them set as late as the middle of May, and with shoots from six to eight inches in length, but not with the best success by any means. I prefer, however, for several reasons, to have the shoots two or three inches in length when planted out. They should be set in good mellow soil, and with the top of the scion an inch or two above the ground. The sprouts from the roots should all be taken off when they are set.

I have grafted in the above manner for several years, and I believe with as good success as could be expected. I find, according to my books, (in which I keep regular lists of the varieties grafted each year, with the number set, and also the number of each kind alive in the fall,) of one vari-

ety 137 set, and 124 lived; another, 204 and 190; 173, 165; 103, 102; this, to be sure, is better than the average, though no better than that would have been under favorable circumstances, but we out-westers have to use such stocks as we can get. Root grafting in this way can be done at any time after cold weather sets in, though I do not like to commence before January, and should prefer waiting still longer or till February, if convenient, as it is rather difficult to keep them from starting too early, if done so long before spring. Should there be any roots or scions prepared that are not used the same day, they can be kept perfectly well in water over night, or even two or three days, if necessary. The regular days work grafting, as above, is 500, and it is not a hard task, after a little practice, where the tools and materials are good. Very respectfully yours, &c.

Delavan, Wis., Nov. 16, 1846. F. K. PHŒNIX.

REVIEW.

A BRIEF COMPEND OF AMERICAN AGRICULTURE. By R. L. ALLEN. New-York, Saxton & Miles. Buffalo, T. & M. Butler. 12mo. pp. 437—$1.

IT is really a great satisfaction to get hold of an American treatise on Agriculture, that has a plain, practical, common sense character of *its own*. So many mere patchers and compilers are there, who, without any practical knowledge of their own, use their scissors shamelessly upon the productions of English authors, thus readily making *books* without taxing their own poor brains, books too, that are really of no value in this climate and country—books that only serve to puzzle and bewilder the farming novice—that, we repeat, it is with unusual satisfaction we have opened this new, compact duodecimo volume.

Mr. R. L. ALLEN, of Buffalo, the author of this work, is already known to the agricultural public as a thorough practical farmer and stock breeder. That he well knows what he is about on a farm, these pages abundantly show. No mere book-maker could have written such a book; and we may add, also, that no mere practical farmer could have written it. A "good practical work" can only be written by a man who has both thought and acted well.

What distinguishes this volume, is its conciseness, its clearness, and its perspicuous treatment of the subject in hand. The reason why most agricultural works are prolix and heavy, is because their authors had not made the subject thoroughly their own. No man can write clearly and plainly about what he possesses only indistinct and confused notions himself. And no man can have clear and distinct ideas, regarding any practical subject like agriculture, however conversant he may be with *Stephens' Book of the Farm*, *Loudon's Encyclopedia* or *Von Thaer's Principles*, unless he is able to *digest* all the more valuable theories contained in these works *in his every day practice*. Otherwise it is only like Calvin Edson, the walking skeleton, dining on roast beef and plum pudding.

What American farmers want, as we conceive, at the present moment, are plain and sensible reasons for our *best* agricultural practice *as it is*, and equally common-sense hints and directions *for its improvement*. Books written upon such a plan, by competent men, will go a thousand times farther toward making good husbandmen, and improving those already skilful, than a republication of all the elaborate English. French

or German systems of draining, subsoiling, and irrigating, that the best authors of the other side of the Atlantic have yet produced.

It is idle to lay before farmers, in a country like ours, where *capital* is rarely or never employed in farming—where land is plentiful, but labor scarce and dear—systems of farming, based on just the contrary state of things—where farming is carried on with abundant capital, and where the price of labor and the means of tillage are such that it will pay a good interest upon the capital employed. It is very much like discoursing to the keeper of a "country store," upon the large principles of commerce which govern the transactions of such houses as the Barings, or Brown, Brothers, and Co.

We think, therefore, that Mr. ALLEN's volume, the basis of which is good practical farming, as practised by the best cultivators in the United States—with an intelligent reference to those principles of science which lie at the root of all successful practice, is likely to be of as much or more real service to us, than any work on agriculture yet issued from the press, and we gladly commend it to the perusal of every one of our readers engaged in the cultivation of land.

Its character, indeed, is essentially that of a manual, or *handbook*. "It is intended," says the preface, "as one of the first in the series of lessons for the American farmer. Its size precludes its embracing any thing beyond the shortest summary of the principles and practice by which he should be guided in the honorable career he has selected. As a primary work, it is not desirable that it should comprise so much as to alarm the tyro in agriculture with the magnitude of his subject. A concise and popular exposition of the principal topics to which his attention will necessarily be directed, will, it is believed, in connection with his own observation and practice, give him a taste for further research, which will lead him to the fullest attainment in agricultural knowledge, that could be expected from his capacity and opportunities."

This is a very modest introduction to a work, which, if only "a brief compend," contains less speculation, and more pith and sense, than one in a hundred of the volumes now being offered on the cultivation of the soil.

The work is by no means local in its character, as it is quite copious and instructive on the subject of southern agriculture, and we cannot doubt will be very acceptable south of the Potomac.

We would gladly give space for some extracts from the body of the volume, but our limits will not permit. We cannot, however, but quote from the introduction, Mr. ALLEN's excellent remarks on the propriety of the exercise, by the State Legislature, of a fostering care of the interests of Agriculture. The *people*, Mr. ALLEN urges with force, should oblige the state legislatures to effect something more tangible for the education and advancement of farmers as a class—we may add, the *great respectable* class of America.

"Education, in all its branches, is under their exclusive control; and to endow and foster every institution which has a tendency to raise and improve the intellectual, the moral, and the social condition of the people, has ever been their cherished policy. Yet up to this time, no institution expressly designed for the professional education of farmers, has ever been established in this country. That far-seeing wisdom which characterizes the consummate statesman, which regards the future equally with the present and past, has halted upon the threshold of the great temple of agricultural science, whose ample and enduring foundations have been commenced by the united efforts of the men of genius throughout both hemispheres. To aid with every means in their power, in laying these foundations broad and deep, to elevate its superstructure, to rear its mighty columns, and adorn its graceful capitals, would seem most properly to come within the province of the representatives of

intelligent freemen, the great business of whose lives is the practice of agriculture.

"In addition to continuing and making more general and comprehensive the encouragement for other objects heretofore considered, it is the duty of each of the larger states of the Union, liberally to endow and organize an Agricultural College, and insure its successful operation within its jurisdiction. Connected with them, should be example and experimental farms, where the suggestions of science should be amply tested, and carried out before submitting them to the public. The most competent men at home and abroad should be invited to fill its professional chairs, and if money would tempt a Liebig, a Boussingault, a Johnston, or a Playfair, to leave the investigations of European soils and products, and devote all their mind and energies to the development of American husbandry, it should be freely given.

"These institutions should be schools for the teachers equally with the taught, and their liberally appointed laboratories and collections should contain every available means for the discovery of what is yet hidden, as well as for the further development of what is already partially known. Minor institutions should of course be established at different and remote points, to scatter the elements of agricultural knowledge broadcast throughout the land, and bring them within the reach of the poorest citizens and the humblest capacities.

"By such a liberal and enlightened course, we should not only incalculably augment the productive agricultural energies of our own country, but we should also in part repay to the world at large the obligations under which we now rest for having appropriated numerous and important discoveries and improvements from abroad. If we have the ability, which none can doubt, we should make it a point of honor to return in kind the liberal advances we have thus received.

"It is to the rising generation these suggestions are made; the risen are not yet prepared for their acceptance. The latter have been educated and become habituated to different and more partial influences. By their industry, intelligence, and energy, displayed in numberless ways, and especially by their protection of American labor, they have accomplished much for their own and their country's welfare—they are resolved to leave this glory for their successors."

FOREIGN NOTICES.

THE DERBY ARBORETUM.—The attraction to Derby was the public garden planted as an Arboretum, where it is proposed to grow a specimen of every species of tree and shrub that will bear the climate. It was planned by JOSEPH STRUTT, Esq. a wealthy silk manufacturer, and a member of parliament, as a gift to his townsmen. It is certainly one of the noblest donations, for its beauty and utility, ever made by an individual for the benefit of a community in perpetuity.

There are eleven acres, laid out in such a manner as to give an idea of much greater extent; the walks being excavated, and the earth thus obtained being carried up gradually sloping ridges well planted, the adjoining path is not visible; you may thus be within twenty feet of a large party without being aware of their presence. The circuit is thus much extended, compared with what it would have been, had not this device been adopted; the boundaries are hidden by shrubbery, and the best modern hints on landscape gardening have all been adopted by Mr. LOUDON. When the trees, which are now small, have had time to grow, the Derby Arboretum will contain such a variety as to be one of the most attractive spots to the botanist in Europe. They are never to be allowed to attain great height or size, the object of the institution being to assemble as great a variety as possible, for the purpose of instruction. To this end every tree and shrub is labelled with its appropriate botanical and common name, in the following manner:

A cast-iron rod, with a square top indented so as to receive a glass covering, is inserted in the ground at the foot of each plant; the names are conspicuously painted, and the glass glazed in thus those who run may read. The benevolent founder, whose bequest amounted to fifty thousand dollars, land, buildings, and improvements included, intended it as a place of recreation for all classes, including the working population, who are admitted gratuitously five days in the week including Sunday after Church service; on the other two days, the fee of admission is sixpence, for the purpose of keeping the place in order, for repairs, etc. The beautiful lodges at two entrances are so arranged that comfortable rooms for visitors are attached, where pic-nic parties may bring their eatables, and obtain the use of plates, knives and forks, for the smallest fee; tea, coffee, and cakes are sold at prices barely covering the cost.

"So far the whole affair has worked well for the pleasure and improvement of the middle and poorer classes, who enjoy the recreation afforded, and have proved themselves worthy of the trust reposed in them; many have taken to the study of Arboriculture; books for reference, such as those invaluable ones of LOUDON'S, are kept for the use of visitors without any charge or fee whatever.

Mr. STRUTT'S arrangements contemplated a little further recreation on week days; handsome tents are provided for such visitors as desire to have a rural fête champêtre; to these, under proper regulations of the trustees, who are perpetually a committee of the town councils, a party may resort to dance, bringing a band, or to enjoy music.—*Smith's Jaunt across the water.*

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ECONOMICAL VALUE OF THE GRASSES.—For economical purposes, grasses are often of much im-

portance. The strong stems of the Bamboo are employed instead of timber and cordage. The *Arundo arenaria* and *Elymus arenarius* (Marrum grasses) are invaluable species for keeping together the blowing sands of the sea-coast, by their creeping suckers and tough entangled roots. The first is employed in the Hebrides for many economical purposes, being made into ropes for various uses, mats for pack-saddles, bags, hats, etc. Some of the reeds of Brazil, called Taquarussa, are living fountains: they grow from thirty to forty feet high, with a diameter of six inches, from thorny, impenetrable thickets, and are exceedingly grateful to hunters; for, on cutting off such a reed below a joint, the stem of the younger shoots is found to be full of a cool liquid, which quenches the most burning thirst. Reeds and other coarse species furnish, in Europe, the materials for thatching. The reeds (sometimes sixteen feet long,) from which the Indians of Esmeralda form the tubes whence they blow the arrows poisoned with the deadly Urari or Woorali, are single internodes of the *Arudinaria schomburghii*. (*Linn. Trans.* xviii. p. 562.) A coarse but good sort of soft paper is manufactered in India from the tissue of the Bamboo, and the very young shoots of that plant are eaten like asparagus.

Besides these things, the inorganic products are remarkable. That the cuticle contains a large proportion of silex, is proved by its hardness, and by masses of vitrified matter being found whenever a haystack or heap of corn is accidentally consumed by fire. In the joints of some grasses, a perfect siliceous deposit is found, particularly in a kind of Jungle grass mentioned in a letter from Dr. Moore to Dr. Kenedy of Edinburgh. It is also said that wheat straw may be melted into a colorless glass with the blow-pipe, without any addition. Barley straw melts into a glass of a topaz yellow color. The siliceous matter of the Bamboo is often secreted at the joints, where it forms a singular substance, called *tabasheer*, of which see a very interesting account in *Brewster's Journal*, viii. p. 268. It was found by Turner, that the tabasheer of India consisted of silica containing a minute quantity of lime and vegetable matter. Sulphur exists in combination with different bases, in wheat, barley, rye, oats, maize, millet, and rice. *Lindley's Vegetable Kingdom.*

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Tricks in all Trades.—In 1828, the Duchess de Berri obtained from the rose plantations which she made every season at Rosni, twelve flowers which appeared to her of remarkable beauty. However, as the point was not only to have beautiful roses, but new and unknown ones, she ordered Madame de la Rochejaquelin to show them to a celebrated gardener. The gardener, having examined them about ten minutes, declared that three of them were new. One of them in particular appeared to merit a preference over its two rivals, and it received the appellation of the *Hybrid of Rosni*.

Two years after, in the month of May, 1830, the last season the Duchess de Berri was destined to see her roses in flower, she bethought herself that she had for two years enjoyed the pleasure of possessing alone the *Hybrid of Rosni*, and that it was time to renew her pleasure by making others partake of it. She considered that it would be a present of value to the celebrated gardener, and she commissioned Madame de la Rochejaquelin to offer it to him for her. Madame de la Rochejaquelin found the horticulturist reading under the shade of two lofty rose trees, bending down with magnificent flowers. He received the offer with all the marks of gratitude which this honorable and delicate attention deserved. But the benefit arrived too late; he had contrived, during the short time the roses were in his hands, two years before, to cut off privately two buds of the finest variety; he had grafted them with the greatest success, and he had received the messenger of the Duchess under the shade of two *Hybrids of Rosni* far finer than any of those in the possession of Madame. *Gardener and Practical Florist, Vol.* 3, *p.* 54.

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A "Seedy" Lawyer.—The Anemone grows naturally in the Levant, particularly in the islands of the Archipelago, where the borders of the fields are covered with them of all the colors, but the flowers are single, and have been greatly improved by culture. In France they were long cultivated before they were much known in Holland or England. Tournefort mentions two French gentlemen, Messrs. Malaval and Bachelier, who contributed greatly to the improvement of these flowers; and of the latter, he relates a pleasant story as follows:

There was a certain lawyer to whom M. Bachelier refused to communicate the seeds of his fine Anemones, who finding he could not obtain any either by friendship or money, determined to make a visit to M. Bachelier, with some of his friends who were in the secret; he ordered his lacquey who supported the train of his gown, to let it drop on a bed where the Anemones grew which he wanted, whose seeds were then ripe. They walked a considerable time, talking on various subjects, and when they came to the spot where the Anemones grew, a merry gentleman of the company began a story which engaged the attention of M. Bachelier, at which time the lacquey, who was no fool, let fall his master's train over the bed, and the seeds, having a downy covering, stuck to the gown, which the boy afterwards carefully raised, and the company went forward. The virtuoso took leave of M. Bachelier, and went directly home, where he carefully picked off the seeds which had stuck to his robes, and sowed them, which produced very beautiful flowers. *Gardener and Practical Florist, Vol.* 3, *p.* 266.

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Planting Evergreens.—After all that has been said about spring planting of evergreens, or even midwinter, I am persuaded that no part of the year can equal the autumn—say from the middle of October until the end of November. I have moved hundreds of large evergreens, at all periods within the last twenty years, and I have invariably realized the greatest amount of success by autumn planting. Much, however, depends on the character of the soil, as well as on the mode in which the operation is conducted. Some persons advo-

cate "puddle planting;" but on what principles I never could discover. Why not "puddle potting?" Certainly it is better to puddle a large specimen than to totally neglect it in regard to moisture. My practice is this: To open a hole much larger than the ball of earth or volume of roots about to be introduced, taking care not to make the hole any deeper in general than the surface-soil extends; then to saturate the subsoil with water, and next to pulverize the soil thoroughly, intended for filling in round the roots. After this is completed, I invariably rake together a body of tree-leaves (if at hand,) weeds, sticks, &c., and throw three or four inches (sometimes a foot,) in the bottom of the hole, to set the ball or roots on, putting little or no soil beneath the tree. The tree being carefully removed—not a fibre suffered to dry, if possible, during the operation—is placed on the leaves, and the process of filling up commences. I invariably mix decayed vegetable matter with the common soil; this is sometimes obtained on the spot by raking or paring the surface of the ground contiguous. The soil being in a mellow state, is slightly trod as the filling proceeds; and when filled level with the ball or rather above it, the whole receives a thorough watering, using several cans of water at slight intervals. The next business, and a most important affair, is to thoroughly stake the tree to prevent wind-waving. When this is completed, a thick mulching of half-rotten manure or leaves will finish the process. Such trees should have one thorough soaking of water in the early part of April; afterwards they may be safely left to themselves.—*Gard. Chron.*

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Abies Douglasii.—The size and growth of the Abies Douglasii in the fine climate of Dropmore and Carclew, having been noticed, it may not be uninteresting to know how it has prospered in a comparatively ungenial climate, and at a height of 750 feet above the level of the sea. I have just had mine measured; the height is 40 feet, the circumference at two feet from the ground is 3 feet 6 inches, the length of some of the lower branches nearly 14 feet, and the circumference of the branches on the ground about 90 feet. It is thickly clothed with luxuriant branches from the ground to the top. It would certainly have been 5 or 6 feet higher, but from the misfortune of having twice lost its leading shoot; three years ago a shot from a gun pierced the leading shoot, and this year a severe hailstorm broke it down. In one respect I am more fortunate than Sir C. Lemon, at Carclew, for I have 50 fine young plants raised from the seed of last year, but which had a narrow escape from death by the same hailstorm that broke the leading shoot of their parent, and were only saved by the gardener rushing out with a hand glass; they would otherwise all have perished, along with other plants that were cut down in great numbers. I have two or three fine plants raised from layers, which seem to be putting out shoots on all sides, and growing well and upright. There are no cones upon the tree this year.—*William Ord. Gardener's Chronicle.*

A Species of American Aloe in Flower.—There is now in flower in the Botanical Garden of this University, a fine specimen of Furcræa cubensis or Cuba Aloe, raised from seed sent to the garden about 14 years ago, since which time it has been constantly kept in the stove. The first indication it gave of flowering was early in the month of August of the present year, and since that time the stem has made so rapid a growth as to have attained the height of 23 feet, and has produced 28 branches, which are again divided into many branchlets, on which are suspended about 1400 buds and blossoms; these are of a greenish-yellow color, and, when fully expanded, rather more than 2 inches in diameter, very fragrant; but, viewing each flower singly, by no means showy. Although this species was introduced into England so long ago as 1739, this is supposed to be the first time it has flowered in this country. Furcræa gigantea, a species very similar to the above, flowered in the autumn of 1820, in the garden of the Right Hon. Earl Powis, at his seat at Walcot, in Shropshire, and is figured in the "Botanical Magazine," v. 48, t. 2250. Another very fine plant of the same species has recently flowered in the Royal Botanic Garden at Kew.—*Oxford Herald, Oct.* 17.

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Beet-root a Substitute for Potatoes.—Beet-root cannot be too much recommended as a cheap substitute for the Potato. Hitherto the red has only been used in England as a pickle, or as a garnish for salad; even the few who dress it generally boil it, by which process the rich saccharine juice is in a great measure lost, and the root consequently rendered less nutritious by the quantity of water which it imbibes, as well as by parting with the native syrup of which it is thus forcibly deprived; it is, therefore, strongly recommended to bake instead of boiling them, when they will be found to afford a delicious and wholesome food. This is not an untried novelty, for both red and white Beet-root are extensively used on the Continent; in Italy especially, they are carried about hot from the oven twice a day, and sold in the streets, giving to thousands, with bread, salt, pepper and butter, a satisfactory meal. There are few purposes, for which baked, or even roasted, or fried Beet-root would not be found preferable to boiled. If these roots were so universally cultivated in England for human food as they are on the Continent, and baked and sold as cheap, as they might easily be, many a poor person would have a hearty and good meal who is now often obliged to go without one.—*Torquay Directory.*

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Superphosphate of Lime.—When a small portion of superphosphate of lime is mixed with seeds when sown, in sufficient quantity to give them the appearance of being limed over, the seeds germinate quicker and stronger, more especially in the case of old seeds; and it is also found that the plants are less liable to damp off, or be injured by insects.—*Journal of Horticultural Society.*

DOMESTIC NOTICES.

BROWNE'S TREES OF AMERICA.—Mr. BROWNE has favored us with some remarks touching the review of his work in our October number. Our rather crowded columns this month do not allow us to print it entire, as we would willingly do.

He remarks, "I have observed several errors, probably caused by oversight, and one or two passages that would have a tendency to mislead the public."

Mr. BROWNE complains that Mr. LOUDON has often been a borrower from *his* first work on trees, the "Sylva Americana;" and remarks that he has given credit to LOUDON in the body of the *Trees of America* "more than one hundred times." This is true, but it in no way affects our criticism, as the credit is given for particular passages, when whole pages are copied without credit.

"In justice to your readers," says Mr. BROWNE, "could you not with propriety have informed them, that there are, at least, fifty trees described in my work, which are not even mentioned by LOUDON!"

We are obliged to reply to this, that, after carefully comparing the two works again, we cannot find *five* species. If Mr. BROWNE will point them out, and name them, we will do him the justice to publish them to our readers.

The truth is this work has disappointed those who looked for something new and valuable on the subject of American forest and ornamental trees. To show that others share with us in this opinion, we quote the following criticism on the work, from the last number of *Silliman's Journal of Science and Art*. It bears the initials of GRAY, the professor of botany at Harvard University, and one of the authors of Torrey and Gray's Flora, certainly an authority of the highest rank on such subjects:

"Though we find no statement restricting the general title, 'Trees of America,' we presume, on the whole, that those of the United States only are intended, which may be termed, *par excellence*, American, in the same way that the continental title is applied to our citizens abroad. What is meant by the '*foreign* trees of America,' is not so clear, since Mr. BROWNE has omitted many of the common hardy exotics cultivated among us, while he has given such as the *Pistachio nut*, the *Paraguay Tea*, the *Prunus avium* of Europe, (which stands in his book under the name of 'The Wild Cherry Tree,' to mislead the general reader,) the *Laurus nobilis*, or True Laurel, and lastly the *Camphor Tree*, which is surely 'foreign' enough. On the other hand, the greater part of our Thorns, our Wild Crab trees, the Southern Prickly Ash, two of our Rhododendrons, and a large portion of our commonest taller shrubs, are entirely unnoticed; not that shrubs do not fall within the range of the work; for the low Canadian Barberry, the *Æsculus macrostachya* and the *Ilex vomitoria*, etc., are given in full. Upon examination, we find the book closes abruptly with the Elm family; the Amentaceous and Coniferous trees, that is, *our principal forest trees*, being left to the contingency of another 'supplementary volume,' to be published or not, as circumstances may warrant; which we suspect is not exactly according to the terms of subscription. We should not have remarked upon this, nor upon the singular notion of making the Oaks, Hickories and Pines, play a *supplementary* part to Oranges, Almonds, Pomegranates, Myrtles, Figs and Camphor trees, in a work on the 'trees of this country, more complete and extensive than had hitherto been published,' if there had been any indication upon the title page or cover, or even an explicit statement in the preface, that this is only the first volume of a work on our trees, and in itself incomplete. This is 'a trick of the trade,' for which, perhaps, the author himself is not directly responsible. That we do not consider Mr. BROWNE as high botanical authority will not be surprising, when it is seen that he describes the *Ohio Buckeye* as a variety of the *common Horse Chestnut*, the *Rhus glabra* as a variety of the *Rhus typhina*, the *Robinia hispida*, or *Bristly Locust*, as a variety of the *Pseudacacia*, or common Locust tree; states his confident belief that the *Choke Cherry* and the *Wild Black Cherry* (Cerasus virginiana and C. serotina) are one and the same species; confounds in the same way all our species of Ash under *Fraxinus americana*, and all our Elms, even the *Wahoo* and *Slippery Elm*, under *Ulmus americana*. Some of these mistakes are copied from Loudon; but an American writer on the trees of his own country, who professes to exercise his own judgment on these points, should have corrected such obvious errors, instead of adding to them. Some liberty is taken with the poetry as well as the botany. A part of those beautiful lines—

> 'Wise with the lore of centuries,
> What tales, if there were tongues in trees,
> Those giant oaks could tell,'—

are 'conveyed' to the Pittsfield Elm, without a sign to indicate the change. The fruit of *Cratægus spathulata* is said to be of 'the smallness of a grain of mustard seed,' (p. 274.) The venerable Hales is said to be the author of 'Vegetable-Statistics,' instead of *Vegetable Statics*. Mr. Browne, following Michaux, says, 'The wood of *Olea americana* is excessively hard and difficult to cut and split: hence the provincial name of *Devilwood*,' (p. 382.) An insufficient reason, one would think, for the bestowal of such an ungracious cognomen. We have heard a better and more probable explanation, viz., that the wood in burning snaps loudly, throwing the fragments explosively from the hearth. We should like to know our author's authority for the following curious statement respecting the sassafras tree. 'The most interesting historical recollection connected with the tree is, that it may be said to have led to the discovery of America, as it was its strong fragrance, smelt by Columbus, that encouraged him to persevere when his crew were in a state of mutiny, and enabled him to convince them that land was not far off,' (p. 417.) Acute olfactories the great navigator must have had, to snuff the fragrance of Sassafras groves in Florida, more than five hundred miles off! Besides, now-a-days, the flowers of Sassafras

are almost scentless. With the greatest propriety does the author say, that he 'feels called upon to acknowledge that he is particularly indebted to Mr. Loudon, *for a large share of his work*, taken from the Arboretum Britannicum, and to Dr. Thaddeus W. Harris, for many valuable extracts from his Report on the Insects of Massachusets injurious to vegetation.' From the latter, copious abstracts of the highest interest have been very freely taken; indeed, nowhere beyond Dr. Harris's *own* volume, will *so large an amount* of his invaluable researches be found embodied as in Mr. Browne s work. A. Gr." .....

American Fruits in Foreign Countries.—We learn by a letter from William Tudor, Esq., of Boston, (well known in the four quarters of the globe for his extraordinary success in supplying Europe, Asia, and the West Indies with an abundance of American ice,) that exporting our finest fruits to the tropics and to far distant ports, in excellent condition, is no longer a matter of experiment.

"Ice houses and gardens," he observes, "will ere long go into alliance, as the White Doyenne (St. Michæls, or Virgalieu) pear, picked here in September, has been sold in Calcutta in February and March—peaches in Jamaica, and strawberries in Barbadoes. The Baldwin apple is sold in good condition in the East Indies two months after it is entirely gone in the neighborhood of Boston. Temperature has to do with an advance to ripeness in a very striking degree, and the importance and value of this fact is not sufficiently and extensively known."

We should be glad to receive a more detailed account of the mode of packing and transporting fine fruits in low temperature.—Ed.

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Norton's Seedling Grape.—This native grape has borne well, and ripened a good crop of fruit with us, this season. It proves, in our estimation, unworthy of cultivation as a *table grape*. It is pulpy, and the flavor poor. As a *wine grape* we understand it bears an excellent reputation.

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Transplanting Evergreens.—Who is not pleased with the fine rich green of the pines, firs, and cedars, among the ornamental trees which should embellish every country residence,—especially while every thing else is stripped of its verdure, by the hand of winter? But, while all admire and desire evergreens, the opinion is general that their removal from the forest or nursery ground, is one of great difficulty and hazard.

In such cases, that only is difficult or hazardous, which is not understood. Experience shows most plainly that pines and firs are not to be treated as common deciduous trees, which may be torn from from the ground, with denuded roots, and re-set without loss or danger. But because a different course is needed for evergreens, we must not hence conclude, that when treated according to their peculiar need, there is any uncommon difficulty. Let the means be only adapted to the end, and all gardening operations become easy.

A leading requisite, to which the attention should be directed, is that the tree, after removal, be similarly situated, as regards the roots and the supply from them, as before. The roots of evergreens are usually more fragile than those of other trees; hence, it is very hard to get them entire, if separated from the soil which encircled them. And hence, it becomes quite important to *remove the soil with them*. We have set out large numbers of white pines, American arbor vitæ, and other evergreens from the woods, from five to twenty feet in height, and scarcely ever lost one of them. We have on the other hand, observed hundreds of much less size, set out by others, and in some instances not one in fifty survived removal. In the first instance, large, circular cakes of earth adhered to the roots; in the other, they were taken, bare, from the soil. In some of the successful cases alluded to, two or three hundred pounds of earth remained on the roots of single trees; but for trees five or six feet high, ten or fifteen pounds are enough. Where they are to be carried on a wagon to a distance, the earth will be found to adhere better, without being jolted off, if the trees are selected from mucky places, or from the borders of swamps, and these do well removed to upland. But this is not very essential, provided they are carefully taken up, and the earth properly secured by wrapping or packing. *In no case whatever, did we ever know an evergreen tree to be lost by transplanting, where a full sized circle of earth was removed in contact with the roots.* As a general guide to the size or weight of this circle, it should be heavy enough to prevent the tree from blowing down, after it is set out, without staking.

"But," exclaims some one, "are we to be taxed with the labor and expense of carrying this great load of soil on every tree?" Certainly—this is the price of your beautiful evergreens—who would grudge it? Besides, this is the cheapest way of getting them; one fact in our knowledge as an illustration. Two neighbors went many miles for a load each of white pines. One brought only a dozen, with plenty of earth on the roots; every one lived and flourished. The other, thinking to do better, brought fifty, with denuded roots. Only one lived. Which was the cheaper bargain?

In cases where the earth cannot be had upon the roots, many may be saved by a strict observance of the usual provisions of nature. The roots of evergreens are commonly confined very nearly to the surface; the flat faces of the pine stump fences of some districts exhibit this habit on a large scale. In setting them out therefore, it is best to retain that shallowness,—provided other requisites can be secured. That is, if set shallow, a full supply of moisture must be maintained by a thorough admixture of muck with the soil on which they stand; and a covering of leaves to retain the moisture, in imitation of the natural coating in the woods, must not be omitted. Watering, if necessary, must be freely and repeatedly given. The immersion of the roots in a thick, rich, mucky mud, just before setting out, is of the highest importance. But if the requisites, just mentioned, for maintaining moisture at the roots, cannot be fully attained, it is much better to set the tree deeper, with muddied roots as already mentioned,

and the soil to be well and closely settled among the roots by throwing in water.

These requisites should be also attended to, in setting out evergreens from the nursery, where, by occasional removal, the roots may be well fitted for the operation, and the danger so much diminished, as scarcely to be taken into account. *J. J. T., Macedon, N. Y.*

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STRICTURES ON PRINCE'S MANUAL OF ROSES.—For many months the note of preparation has been sounded for the advent of this very remarkable book, and it has at length appeared, with a title page, dedication and preface, which leave no room for doubt as to who would be thought "the author." The Rose is indeed the brightest gem in Flora's wreath, and with great truth, has long been designated "the Queen of Flowers." From the fact that it possesses *enduring* qualities, it is universally admired, and at the present moment commands more attention than any other flower with which we are acquainted. To write about them, must be particularly agreeable, and several monographs have been published in Europe and America illustrative of their peculiarities of fragrance, size, form, and other essential properties. Of these, one of the best is "The Rose Amateur's Guide," by T. Rivers, Jr., pp. 209, London, 1843, third edition, a work yet very scarce in this country, as but a few copies have been imported to individual orders. Now Mr. Prince has a very high opinion of Mr. Rivers' "estimable work," and has combined in the pages of the "little volume" which heads this article, "*every item of knowledge*" from Rivers' book; in other words, *he has copied it entire, combining in his preface* the following items of knowledge in the very language of Rivers' introduction.

At page 7, he says, "the present little treatise, which has been prepared at leisure moments, may be considered as a general guide to the lovers of the Rose. All the details are given with candor, and throughout its entire pages, *the author* (mark that) has cast aside all business prejudices, and discussed the subject as an admiring amateur." This is all very well; but what says Mr. Rivers? At page 9, he remarks, "As a guide, then, to the lovers of roses, this little treatise has been written in the few leisure moments allowed me by the unceasing cares of a general nursery business;" and at page 10, "I have endeavored to lay aside all business prejudices, and only to view them (roses) as an admiring amateur." Again, says Mr. Prince, "Some new roses inserted in the catalogue have only bloomed here one season, and perhaps not in perfection, so that accurate descriptions could not be given of them; the most of these are undoubtedly fine varieties. In classing the roses, I have retained those which are but slightly hybridized in the division to which they have the nearest affinity: for instance, if a rose between the French and Provence roses, has more of the character of the former than the latter, it is retained with the French roses, as it will group well with them, though not a pure French rose; this helps to avoid too numerous subdivisions." Now this is all copied from page 11 of Rivers' introduction, and affords an admirable specimen of the art of *combining* "items of knowledge" according to the latest improvements. "The author" intended manifestly to pass off the "little" treatise as his own, and every page gives evidence of his design, that such should be the opinion of all who read it. He sails, however, under a piratical flag, and richly merits the scorn of every right thinking man. We say, that with a few trifling alterations, additions, or omissions, Mr. Prince has *copied Mr. Rivers' whole book*, appropriating page after page with a boldness we have never seen equalled. One or two illustrations will be sufficient to show *how* Mr. Rivers has been dealt with. In the chapter on hybrid China Roses, page 64, Mr. Prince thus remarks: "To one fine variety, too much attention cannot be directed, and this is Chenedolé, so called from a member of the Chamber of Deputies for Calvados, a district in Normandy, where this fine rose was raised. It has often been asserted that no rose could compete with Brennus in size and beauty; *but I feel no hesitation in saying*, that in superior brilliancy of color, and size of flower, this variety is superior; the foliage and habit of the plant are also much more elegant and striking; in color, its flowers are of a peculiar glowing vivid crimson, discernable at a great distance; it is indeed an admirable rose, and cannot be too much cultivated." Who has no hesitation in saying? We place a part of the language in italics, but the *whole* is an exact copy from Rivers, p. 51. At p. 93, Mr. Prince thus elegantly *combines* one of Mr. Rivers' "items:" "Hybrida, or Laure Davoust, is a hybrid, and a most elegant and delicate rose, having all the peculiar neatness of the double red and white varieties, with larger flowers and more beautiful foliage. This is one of the prettiest climbing roses known, and also one of the hardiest of its class. *A Genevese friend informs me*, that some pillars of this rose at Geneva are thirty feet high, and covered with flowers the greater part of summer." We italicize, and ask the reader to bear in mind, that *every word* is copied from Rivers, page 85, and we trust the "*Genevese friend*" will not soon be forgotten. It is thus throughout the whole book, that Mr. Rivers is handled, and we are very much mistaken, if when he makes the discovery, he (Mr. Rivers) will not publish a card of thanks for these *princely* favors. From page 179 to page 196 of "Prince's Manual," *every word* is copied, notes and all, and we shall close this notice, by presenting the reader with the following *extraordinary coincidence* of thought and language, see page 195 of Prince, and 192 of Rivers.

"The most elegant pot roses for exhibition may be selected from those families recommended for greenhouse culture; but as it is now the fashion for horticultural societies to offer prizes for "roses in pots," it becomes my duty to offer a few observations on growing hardy varieties of roses in pots, so as to form very large plants. I must here caution the reader, that occasional disappointment must be expected in growing them in pots for exhibition, as roses like facts, are stubborn things, and will often, in summer, bloom just whenever it pleases them to do so, not being easily retarded or forced. Those roses recommended for green

house culture, from their producing a succession of bloom, must be most relied on by the exhibitor; but if by a lucky chance, a collection of moss roses, or some of the finer kinds of French and Hybrid Bourbon roses, could be enticed to show themselves in all their gay attire on *the* day, they would make the green-house roses 'hide their diminished heads.'"

We commend this "author" to the notice of horticulturists generally, and his "little treatise" as a fair specimen of his abilities to deal in exaggerated statements. *Pro patria. New-York, Oct.* 28, 1846.

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Sale of the Magnificent Camellias Wilderii and Mrs. Abby Wilder.—The Boston Transcript states that these splendid Seedling Camellias, grown by M. P. Wilder, Esq., President of the Massachusetts Horticultural Society, and which have elicited so much praise from amateurs, and to which that Society awarded their highest token, a superb piece of *Silver Plate*, valued at Fifty Dollars, have been sold to Mr. James L. L. F. Warren, the proprietor of Nonantum Vale Gardens, for the handsome sum of One Thousand Dollars.

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Influence of the Scion upon the Stock.—Upon removing the plants from a bed of seedling Canada plums (the wild red plum of our woods), about a hundred of which were budded last summer with the Imperial Gage, Red Gage, and Jefferson plums, and which had made a growth of four or five feet the present season, and were quite stocky, I found that the amount of roots of the budded trees was less than half of those remaining unbudded, and the color was a shade deeper. The Canada plum is remarkable for the amount of roots which it emits, compared with those of the domesticated plum; but in the case of these budded trees, the roots seemed not to have increased from what they were probably last spring, while the tops were larger than those not budded. The influence of the stock upon the scion is a matter which has been much discussed; but I do not recollect ever to have seen any thing upon the influence of the scion upon the stock, or at least as it regards the growth of the roots. The saying of Lord Bacon that "the stock is passive, the scion overruling it quite," seemed here true in a manner I had before thought of. How is it to be explained? Is not something similar seen in the case of pears upon quince stocks? Yours with respect. *S. L. G. Saco, Maine, October,* 1846.

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Buffalo Horticultural Society.—The last exhibition of this Society, for the season, was held on Wednesday, the 30th of September, and it is with feelings of pleasure that the committee present so gratifying a result. Notwithstanding there had been repeated calls upon the enthusiasm of the prominent friends of Horticulture in this section, since our last exhibition, in consequence of the State Fair, and the Agricultural Fair in our county, at both which the evidence of the influence of our Society was prominent, still there was no diminution of energy or lack of spirit at our last exhibition, but, on the contrary, all seemed animated with a still stronger desire to push forward in that beautiful department of culture which is the especial object of the Association.

The show of Fruits very far exceeded the expectations of all. Apples, Pears, Peaches, Plums, Grapes, &c., were exhibited, which, for variety and cultivation, would compare favorably with any section of the Union. Among the Apples shown, were some from R. Starkweather, Esq., which weighed, singly, twenty-five ounces.

It is not our intention now to go into a labored report, and we shall therefore confine ourselves to the catalogue of contributions. The show of Flowers was very beautiful. Roses, Dahlias, Verbenas, and the numerous other beautiful annual and perennial flowers now in bloom, made up into beautiful bouquets, by the contributors or the fair hands of our Ladies' committee, contributed to enliven our show room. In vegetables there was also a very respectable representation, among which a mammoth Squash, sent as a delegate from the Great West, and presented by Samuel T. Atwater, Esq., stood very conspicuous.

Prior to the sale of Fruits, Flowers, &c., the President, Mr. L. F. Allen, delivered a very excellent and spirited address before the Society, and a crowded and attentive audience of citizens generally. Mr. A. dwelt upon the importance and results naturally arising from a well organized society of this kind, and gave some statistical account of the progress of Horticulture in and around Buffalo for the past twenty years, and wound up with many sound and practical suggestions for the future. These are the kind of addresses for the people, and of which we hope during another season to hear more frequently. At the close of the address it was moved and seconded that a vote of thanks be tendered the President, for his very able and instructive lecture, which was unanimously responded to.

[After an enumeration of the articles exhibited, for which we have not room, the committee say:]

The Flowers at the September show, for rarity and fine culture, exceeded any previous exhibition, except that of June. Our professional gardeners, particularly Messrs. Webb, Tyler, and Mr. B. Hodge, contributed in a high degree to render this feature very attractive. The contributions of amateurs, also, evinced much good taste and careful culture.

The committee cannot but share in the general feeling of gratification at the happy completion of our labors for the present year, giving presage as it does of renewed vigor and emulation for another year. Already has a spirit been excited for the pursuit of this beautiful portion of labor which bids fair to produce important results, materially enhancing our pleasures and comforts. It is with pleasure we point to the reports of our past exhibitions, showing as they do, that we are continually progressive. Many individuals, whom a year or two since scarcely thought of putting a seed in the ground, or transplanting a single shrub, now show very respectable contributions; and of this class, the number is rapidly increasing. Our catalogue of contributions will also show that we have those in our society who are not "weary of well-doing,"

but at each succeeding exhibition are promptly ready with fair offerings to Flora and Pomona.

With such a spirit as this, and with the continued assistance of our Ladies, whose aid has proved so efficient during the past year, we may reasonably look for the time, and that not far distant, when Fruit and Flowers of the finest and most choice kinds shall be no rarity in our private gardens, and our markets be stocked with as fine specimens of Fruits and Vegetables as that of any other quarter of the Union.

At an early day the proceedings of the society for the past year will be published, together with an outline of the plan of proceedings for the next season. An important change in our proceedings is contemplated, which, if carried into effect, will probably add materially to the efficiency of our societ .

C. F. S. THOMAS, *Rec. Sec'y.*

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SALT FOR MILDEW.—Grapes have been much injured in this vicinity for several seasons past by the Mildew. Sulphur has been profusely used without any beneficial effect; and the best remedy that has been applied as yet, is a weak solution of salt. Those who have tried it with caution, have met with almost entire success. It should be carefully used, or the remedy will be as fatal as the disease. The quantity of salt should be barely *sufficient to be tasted* in the water in which it is dissolved. The solution is applied by a syringe, over the fruit and foliage, as frequently as there is the least appearance of the disease.

A correspondent of yours speaks of using salt hay to prevent mildew upon the gooseberry. In this section of the state, the gooseberry is so much injured by this disease, whatever pains may have been taken to guard against it, that it is but little cultivated for the table; but in Newport and its vicinity, it is raised without any care in perfection. That place, as you well know, is much exposed to the winds from the ocean, and fogs are of very frequent occurrence. We have often heard it stated that grapes cultivated near the sea, are more free from the disease than elsewhere.

We are inclined to believe that salt properly applied, may be a specific for the disease. Spread upon the soil it may not produce any beneficial effect, unless used in such quantity and so often as to endanger the life of the plant. Heat and moisture operating upon salt hay, gradually causing its decomposition, gives to the salt a continued and durable operation, protecting the plant from the dangers of injury to which it is constantly liable. It may act "as a stimulant," or "a shield to protect the roots," but we believe that syringing the fruit and foliage repeatedly with a weak solution of salt and water, would produce as much effect. We intend to try this experiment, whether salt hay may not act equally as well, when the roots are entirely protected from its operation. *L. C. E. Providence, Aug.* 25.

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IMPROVEMENT IN GLAZING.—I practice what I conceive to be an improvement in glazing greenhouse sashes.

In the lapping of the glass, instead of using putty, as is usual, which soon falls out and crumbles from the continual moisture, &c., I substitute white lead, thus: Take ground lead, as sold in kegs, of good consistency, and spread with a knife on the edge of each plate of glass a line of about three-eights of an inch in breadth. Lay the panes in their place on the sash, gently press them together till they are solid, and tin them firmly down as usual. When all are thus laid, a chisel run on the two edges takes off what may have been expressed, leaving a solid joint impervious to either air or moisture, and gives a neat appearance. The greatest evil we have to contend with in mid-winter is *wind*, and this method entirely excludes that, besides strengthening materially the glass itself. I have tested this method for seven winters, and feel assured both of its utility and economy. Yours, truly, *W. R. C. Buffalo, Oct. 13th.*

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THE LOCUST.—In that most excellent work, the Horticulturist, opinions have been advanced, which however true and applicable to the banks of the Hudson, might lead to error here.

At the risk of being thought presumptuous in differing from such high authority, I would ask—are there really two *distinct* varieties of Locust (*Robinia pseudacacia*) or may not locality produce all the *existing* variety?

It is common in this section of country to hear persons speak of the White Locust and the Yellow Locust; but I have invariably found that locality, and particularly age, make the difference. I have never seen a tree of large size felled that had not yellow and apparently durable timber. If, on the contrary, they be felled while young (especially if grown in rich soil) the annual layer of albumen being much greater, the wood is porous, light colored, and much less durable. So well aware of this fact are our farmers that they will not pay for such half price. The Locust cultivated here for the beauty of its foliage and inflorescence, bears the greatest abundance of seed, and now within sight, are trees literally black with seed pods; and when they attain to the age of thirty years, they present precisely the appearance described by yourself as had by the seed locust, and yet they are cultivated for the known value of their timber.

My father, who, in advance of his compeers, nearly forty years since, foresaw the advantage of their cultivation in this region, carried out his utilitarian habit, by raising hundreds from seed, and planting groves, in whose shade and delightful fragrance many of my youthful hours were spent. These groves have lost none of their beauty, unless perchance by the storm which sometimes overthrew a *mouse-encircled* tree. Of these the color of the wood (and I presume durability) might be anticipated by the spot where they grew.*

If those noble trees at Clermont were cut, the wood would (unless I greatly err) be yellow, compact, and more durable than any other except—— locust.

The opinion prevails here that two varieties of

* These groves were mostly planted on knolls where the cropping out of limestone prevented the use of the plow, or by the road-side.

Tulip Poplar (Liriodendron tulipfera) exist; because of the color and hardness of the wood; and it might be said, manner of growth, for certainly varieties of the locust cannot differ more. And yet the most acute among those who entertain this opinion cannot tell before the tree is felled whether the wood will be *white* or *yellow*, *tough* or *brittle*. A knowledge of vegetable physiology and a close observation of soil, exposure, elevation and age, might enable one to *guess*.—*J. K. E.*

REMARKS.—We were for some time as skeptical about the two varieties of locust as our correspondent. But we have several times lately examined the matter very carefully in Dutchess county—perhaps more fully planted with this tree than any other in the Union. We have seen the two kinds growing side by side, yet showing all the characteristics of each in habit of growth, foliage and fruit. We cannot, therefore, but think the *seed-locust* a very distinct variety.—ED.

MASSACHUSETTS HORTICULTURAL SOCIETY.

Exhibition of Saturday, Oct. 10, 1846.

FLOWERS.—From the President of the Society, 80 blooms of dahlias, among them very fine specimens of Cleopatra, Tassert's Indispensable, Viscount Ressegeur, Eveque de Bayeux, Isis, Ophir, &c., &c.

From William B. Richards, 50 blooms of dahlias, among them several fine specimens.

From J. L. Gardner, by Daniel Crowley, 50 varieties of dahlias, comprising among thom fine specimens of Indispensable White, Lady Antrobus, Beeswing, Cleopatra, Viscount Ressageur, Dodd's Prince of Wales, &c., &c. Also a fine display of sweet pea blossoms, pinks, marigolds, and other cut flowers.

From Lewis Davenport, Milton, a very fine display of Tea and other tender roses, and fine Verbenas

From J. L. L. F. Warren, 150 dahlias, among them fine specimens of several of the new kinds. Also six very fine round table bouquets.

From James Nugent, six bouquets, composed of evergreen, globe amaranthus, and eternal flowers. Also, 25 specimens of dahlias.

From John Hovey, four dahlia bouquets, and cut dahlias in variety.

From Miss Russell, a fine pyramidal bouquet, and three small bouquets.

From Hovey & Co., six fine table bouquets, composed of roses, verbenas, heliotrope, &c., &c.

The committee award to Miss Russell a premium of $2, for a very chaste pyramidal bouquet.

For the Committee, H. W. DUTTON.

FRUIT.—From M. P. Wilder, President of the Society, pears, Buffum, Gore's Heathcote, Fulton, very fine. The Committee tasted of Gore's Heathcote, and found it first rate.

S. G. Perkins, Esq., Brookline, remarkably fine pears; the following is the list sent in by him: Easter Beurre, Beurre Diel, Duchesse d'Angouleme, Great Unknown, Mons Le Cure, Dix, Josephine, Chaumontel, Winter Nelis, Napoleon, St. Michael, Winter Doyenne, Louise Bonne, Jalousie, Seckel, Isambert, Vanillons, Leon le Clerc, Marie Louise, St. Germain.

From E. Brown, Lynn, pears, Roi de Wurtemburg, very fine, William's Bon Chretien.

From Charles Hadwin, Worcester, Strawberry apples.

From Otis Johnson, Lynn, peaches, Smocks's Freestone, Kendrick's Heath, both fine.

From James Eustice, South Reading, two kinds of apples for a name.

From R. Manning, Pomological Garden, Salem, Columbia peach, very handsome; pears, Cand's new, of rich flavor, Beurre Bosc, and Paradise d'Automne.

From O. H. Mather, by Thomas Needham, Brighton, grapes, White Portugal, White Frontignan, Black Frankendall, Black Hamburgh.

From Zelotus Hosmer, Cambridge, pears, Duchess d'Angouleme, very fine and large, and Beurre Diel, fine.

From John Fisk Allen, Salem, pears, Gansel's Bergamont, Beurre Diel, Bonne Louise, (of Jersey,) Seckel; grapes, Black Hamburgh, and Syrian; peaches, Late Admirable.

From G. Merriam, West Newton, peaches, Seedling, Crawford's Late Melacoton, Bergen's Yellow, Old Mixon.

From James W. Sever, Dorchester, Crawford's Late Melacoton, fine.

From Geo. Walsh, Charlestown, pears, Easter Beurre, Beurre d'Aremburg, St. Michael, Buffum, Julienne, Winter Nelis; grapes, open culture, White Sweetwater, Isabella, Seedling, and Red Chasselas.

From John Dunklee, Brighton, apples for a name, Pomme Fameuse.

From George A. Crocker, Taunton, peaches, unknown, large and handsome.

For the Committee, JOHN FISK ALLEN.

VEGETABLES.—From J. F. Hall, a cucumber weighing four pounds.

From A. D. Williams and son, fine celery.

For the Committee, A. D. WILLIAMS, JR.

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Exhibition of Saturday, Oct. 17, 1846.

FLOWERS.—The severe gale of Tuesday prostrated nearly all the Dahlia plants in the vicinity, consequently few were exhibited.

From Hovey & Co., six bouquets, composed of Roses, &c.

From John Hovey, Roxbury, two Dahlia bouquets, and one of evergreen and Amaranthus, also about forty Dahlias.

From Dan'el T. Curtis, eight Dahlia blooms, six of which were of the new sorts.

From Lewis Davenport, Milton, a large collection of Tea, Bourbon, and other tender roses, Verbenas, &c.

From James Nugent, over fifty Dahlias, some of which were fine. Also, ten very neat table bouquets, composed of Evergreen and Amaranthus.

From John Henshaw, Cambridge, a dish containing about a pound of Alexandria Senna, the first ever grown in the open air in this country. The quality of the leaves were pronounced by medical men as superior. The shrub from which the leaves were gathered, was received from Egypt a few years since, and has been cultivated at Mr. Henshaw's country seat. This is the Senna of the shops, the best in use for medicinal purposes.

For the Committee, H. W. DUTTON.

FRUITS.—From M. P. Wilder, President, Pears — Dix, Fulton, Urbaniste, Glout Morceau.

From Cheever Newhall, Pears—Napoleon, Urbaniste, White Doyenne; Peaches—Seedling; Grapes — Syrian, Muscat of Alexandria, Black Hamburgh, Zinfindal, Frontignan, Ohio, extremely small in this climate.

From John Gordon, Pears—Passe Colmar, Duchesse d'Angoulême, Napoleon, Louise Bonne de Jersey; Apples—Gravenstein.(?)

From James Eustis, Apples—Spice, without a name, (handsome,) Harvest Bough, Eustis.

From Hovey & Co., Strawberries—Boston Pine, of second growth.

From John Heard, Pears—Seckel, Forrett (fine.)

From J. Fisk Allen, Pears—Gansel's Bergamot, Seckel, very fine, the largest weighing five to six ounces; Grapes—Isabella, fine, Black Hamburgh; Peaches—Late Admirable.

From George Walsh, Pears — Buffam, White Doyenne, Brown Beurre, Winter Nelis, for a name, Easter Beurre; apples for a name; Grapes, Sweetwater, Seedling, Red Chasselas.

From Charles S. Hunt, Grapes—Sweetwater.

From John S. Ballard, Quince, weighing twenty-three ounces.

From Josiah Lovett, Pears—Gendeison, Flemish Beauty, the largest girthing twelve inches, Seckel, fine, Louise Bonne de Jersey.

From Henry J. Oliver, Apples—Rhode Island Greening, very large.

From J. M. Ives, Pears—Wilkinson, Winter Nelis, Fulton, Napoleon, Lewis, Capiaumont, Passe Colmar, Fondante (Van Mons); Apples—Golden Russet, Russet of Canada, Swaar, Red Doctor, Minister, Lyscom, Baldwin (spurious,) Seaver's Sweet.

From Henry Vandine, Pears—Glout Morceau, Prince's St. Germain, Passe Colmar, Marie Louise, White Doyenne, Spanish Bon Chretien, Turkish Bon Chretien, Treasure.

For the Committee. EBEN WIGHT.

VEGETABLES.—From Josiah Lovett, Beverly, six remarkably large and fine heads of Broccoli.

From A. D. Williams and Son, three fine heads of Celery.

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Exhibition of Saturday, Oct. 24th, 1846.

FRUIT.—From M. P. Wilder, President of the Society, Pears, Duchesse d'Angouleme (fine,) Marie Louise.

From Cheever Newhall, Grapes—Syrian, Black Hamburgh, Muscat of Alexandria.

From Samuel Downer, Jr., Pears—Louise Bonne de Jersey, White Doyenne.

From Joseph Breck & Co., Pears—Gratiola d'Hiver.

From S. L. Goodale, by Joseph Breck & Co., Pears—McLaughlin.

From G. P. Fowler, by Joseph Breck & Co., Pears—Charles of Austria and Sieulle, very large and fine.

From John Henshaw, Quinces, Pyrus japonica.

From Jos. Harrington, Pears—White Doyenne, Duchesse d'Angouleme.

From J. Fisk Allen, Pears—Verte Longue d'Automne, Seckel (fine,) Chaumontelle; Figs, four varieties; Grapes—Syrian, Black Hamburgh, Muscat of Alexandria, Charlsworth Tokay, Black Prince, Zinfindal, Red Chasselas, White and Purple Frontignan, Wortly Hall Seedling.

From George Walsh, Pears—Buffam Dix, White Doyenne, Brown Beurre, Winter Nelis; Grapes—two varieties of seedlings, Sweetwater.

From Alfred S. Andrews, Pears—Uvedale's St. Germain.

From J. Gordon, Pears for a name.

For the Committee, EBEN WIGHT.

VEGETABLES.—From A. D. Willams. Cauliflowers and Broccoli.

From Alfred A. Andrews, very large Carrots.

For the Committee, A. D. WILLIAMS, JR

PENNSYLVANIA HORTICULTURAL SOCIETY.

Reports of the Committees for awarding premiums at the Eighteenth Autumnal Exhibition, held September 16th, 17th, and 18th, 1846.

The Committee on Grapes respectfully report, that they have awarded the following premiums, viz.

NATIVE.

For the best Isabella, six bunches, to G. D. Smith.
next best do. do. to Henry N. Johnson.
best Bland or Powell, do. to Townsend Hilliard.
best Catawba, do. to Henry N. Johnson.
next best do. do. to G. D. Smith.
best Elsinborough, do. to Townsend Hilliard.
next best do. do. to Lewis Craft.
best of another variety, do. to Isaac B. Baxter.

FOREIGN, *raised in the open air.*

For the best Hamburg, four bunches, to Edwin Middleton.
Hansteretto, do. to Gebhard Harres.
Chasselas, do. to Jeremiah Comfort
White Gascoigne, do. to Jeremiah Comfort
of another variety, do. to Peter Shuster.

FOREIGN, *raised under glass.*

For the best without artificial heat, to John Dougherty.

For the next best without artificial heat, to John Sherwood.

For the best with artificial heat, Hamburg, to Wm. Westcott, gardener to Joseph Cowperthwait.

For the next best with artificial heat, Frankenthal, to Geo. W. Carpenter.

And a special premium to J. Cowperthwait, for a bunch of White Syrian, of extraordinary size, ten dollars.

And a special premium to F. M. Bodine, from N. Dunn's cottage, Mount Holly, for Reine de Nice, five dollars.

And a special premium to Caleb Cope, for his splendid variety and Grape Arbor, five dollars.

And a special premium to John Anspach, three dollars.

And a special premium to William McKee, gardener to C. Chauncey, for his festoons, three dollars.

And your committee may well congratulate the Society on the rich display of Grapes at this exhibition, surpassing far that of any former display.

Your Committee are indebted to Mr. Arnold of New-Bedford for the most perfect bunch of Black Hamburg Grapes ever exhibited, but which came to hand late on the third day.

E. W. KEYSER.
R. BUIST.

Philadelphia, Sept. 17, 1846. FRANKLIN PEALE.

The Committee for awarding premiums on Stone Fruits, etc., report that they have awarded premiums as follows,

PEACHES.

For the best, one bushel, to Allen Jones, for Crawford's Late Melecoton.

For the next best, one bushel, to Isaac Pullen, for same.

For the next best, one peck, to General G. Hartman, Red cheeked Melecoton.

For the next best, one peck, to Edward W. French, Crawford's Late Melecoton.

For the best two dozen, to Wm. Johns, Melecoton.

Special Premiums for Peaches:

Charles M. Harker, for seedling, five dollars.
Joseph E. Scott, seedling, one bushel, five dollars.
Isaac B. Baxter, for a display, three dollars.
John C. Clark, do. three dollars.
Mrs. B. E. Valentine, do. three dollars.
John Sherwood, do. two dollars.
Wm. R. Hanson, do. two dollars.

NECTARINES.

For the best two dozen, Elruge, to John Sherwood.

PLUMS.

For the best two dozen, Coe's Golden Drop, to C. J. Macuen.

For the next best, Griffith's Seedling, to Dr. C. M. Griffith.

WATER MELONS.

For the best Spanish variety to Jos. J. Hatch.

For the next best Spanish variety, to Joseph C. Zane.

Special premiums, to Miss Gratz, two dollars.
do. do. to Wm. Brown, two dollars.
do. do. to George Cattell, two dollars.

NUTMEG MELONS.

For the best to Joseph C. Zane.

For the next best, to Caleb Cope.

And special premiums, to Thomas Hancock, for Spanish Cob Nuts, three dollars; and to Miss A. Graham, Walnuts, two dollars.

Respectfully submitted, THOMAS HANCOCK.
THOMAS McEUEN.

Philadelphia, Sept. 17, 1846. ARCHIBALD HENDERSON.

The Committee for awarding premiums on Pears, Apples, etc., report that they have awarded the following premiums,

PEARS.

For the best Seckel Pears, one peck, to Robert Henry, gardener to George Blight.

For the next best Seckel Pears, one peck, to F. Allgier.

For the best Beurre or Butter Pears, one peck, to Jacob Snider, Jr.

For the next best do., to Malcolm Maeuen.

For the best Bartlett, half peck, to Jacob Snider, Jr.

For the best of another variety, one peck, to Samuel A. Walker.

For the next best do.. to Col. Carr.

For the best and most numerous named varieties, to J Rutter.

For the next best do., to J. W. Hayes.

For the next best do., to Thomas Hancock.

APPLES.

For the best, one bushel, to Jacob Haines.
For the next best do., to John Perkins.
For the best one peck, Henry N. Johnson.
For the best and most numerous named varieties, J. Moon.
For the next best do., to John Perkins.
For the next best do., to George B. Deacon.

QUINCES.

For the best half peck, to Judge Isaac Wilkins.
For the next best do., to an unknown contributor.

The Committee have also awarded special premiums, viz.

To John B. Smith, Landreth & Fulton, S. Maupay, James Dundas, Mrs. H G. Freeman, Jacob Senneff, John C. Clark, W. Chancellor, G. Liggett, Miss Gratz, I. B. Baxter, T. S., for a fine display of Pears, two dollars each.

To Gen. M. S. Wade of Cincinnati, for a most magnificent display of Apples, including the Emperor Alexander, $5.

To Thomas Hancock, for an interesting display of seedling varieties of Apples, five dollars.

To Daniel Holland, Henry Spachius, J. Comfort, J. Fell. G. W. Carpenter, J. Kaighn, H. G. Freeman, for fine Apples, one dollar each.

To J. C. Whitall, for fine Oranges and Lemons, two dollars.
To Miss Gratz, for fine delicious figs, three dollars.
To J. B. Smith, for fine German Medlars, two dollars.

W. D. Brinckle,
Peter Mackenzie,
Philadelphia, Sept. 17, 1846. Geo. Zantzinger.

The Committee for awarding premiums on Vegetables, respectfully report the following as the result of their examination, viz.

POTATOES.

For the best, one bushel, to Samuel Cooper.
For the next best do., to Joseph C. Zane.
A special premium for seventeen varieties of seedlings, to J. J. Jennings, five dollars
For the best Sweet, one bushel to G. Brown.
For the next best do., to C. Hopkins.

ONIONS.

For the best four dozen, to J. Riley, gardener at the Insane Hospital.
For the next best do., to A. Felten.

CABBAGE.

For the best six heads. to P. Gallagher, gardener to Miss Gratz.
For the next best do., to A. Felten.
For the best Red do., to J. J. Jennings.
For the next best do., to S. Cooper.

CARROTS.

For the best, garden culture, to A. Felten.
For the next best, do., to W. Hall, gardener to C. Cope.

BEETS.

For the best, one dozen, and the next best do., to A. Felten.

LETTUCE.

For the best six heads, and the next best do., to A. Felten.

ENDIVE.

For the best blanched six heads, to A. Felten.
For the next best do., to S. Cooper.

CHARD.

For the best, six heads., to Anthony Felten.
For the next best do., to Samuel Cooper.

CARDOON.

For the best, six heads, to Anthony Felten.
For the next best do., to J. Jones, gardener to G. G. Leiper.

CELERY.

For the best, six stalks, to W. Sinton, gardener to G. W. Carpenter.
For the next best do. to J. Jones, gardener to G. G. Leiper.

SALSIFY.

For the best, two dozen, to Anthony Felten.
For the next best, do., to Samuel Cooper.

EGG PLANTS.

For the best six, to J. Jones, gardener to G. G. Leiper.
For the next best do., to J. Riley, of the Insane Hospital.

TOMATOES.

For the best, one peck, to Anthony Felten.
For the next best do., to J. Jones, gardener to G. G. Leiper.

CRANBERRIES.

Not the quantity exhibited.

PUMPKINS.

For the largest, two, to A. Henderson, gardener to W. Chancellor.
For the next largest, do., to Anthony Felten.

VEGETABLES.

For the best display, to Anthony Felten.
For the next best do., to J. C. Engleman.
For the next best do., to Samuel Cooper.
For the next best do., to J. Jones, gardener to G. G. Leiper.

HONEY.

For the best display, to Jeremiah Foulk.
For the next best do., to D. Trites.
For the next best do., to Jeremiah Foulk.

Special Premiums.

To W. Sinton, gardener to G. W. Carpenter, for a display, two dollars.

To R. Henry, gardener to G. Blight, for a display, two dollars.

To A. Patton, gardener to Mrs. Kohne, for a display, two dollars.

To A. Henderson, gardener to W. Chancellor, for a display, two dollars.

To. D. R. McCroney, gardener at the Friend's Asylum, for a display, two dollars.

To John Austin, gardener to Isaac B. Baxter, for a display, two dollars.

To John Jackson of Darby, Pa., for a display, two dollars.

To J. R. Bowman, of Lower Merion, Pa., for a display, two dollars.

To Dr. Rivinus, for very fine Turnip Celery, two dollars.

The committee have taken favorable notice of the following, viz

Edward Rogers, very fine display.
John Riley, gardener at the Insane Hospital, very fine display.
Wm. Hall, gardener to Caleb Cope, a very fine display.
R. Buist, Celery and Potatoes.
Miss Mc Donald, Mexican Gourd.
Joseph Diamond, Valparaiso Squash.
J. C. Engleman, superior Sugar Corn.

James Remington,
Edwin Meredith,
J. W. Martien,
Henry A. Dreer.
Philadelphia, Sept. 16, 1846. Isaac B. Baxter.

The Committee on Flowers, Designs, etc., appointed to award the Society's premiums for the Eighteenth Annual Exhibition, beg respectfully to make the following report:

For the best twenty named varieties of Dahlias, three dollars to Gerhard Schmitz.

For the next best do., two dollars, to Gerhard Schmitz.

For the best American Seedling Dahlia, parti-colored, three dollars, to Gerhard Schmitz

For the best do., self-colored, three dollars to G. Schmitz.

For the best and most appropriate design formed of cut flowers, forty dollars, to Archibald Henderson, gardener to Wharton Chancellor, representing a Cottage Summer house.

For the next best design, thirty dollars, to Samuel Maupay, for the plan of a rural temple.

For the next best design, twenty dollars, to Joseph Cook, for a pretty rustic arbor.

For the next best design, fifteen dollars, to Samuel Maupay, for a representation of a grotto.

For the next best design, twelve dollars, to Samuel Maupay, for a plan of a pagoda.

For the next best design, ten dollars, to P. Gallagher, gardener to Miss Gratz, for a pretty rustic temple.

For the next best design, eight dollars, to Samuel Maupay, for a triumphal arch.

For the next best design, six dollars to Archibald Henderson, gardener to Wharton Chancellor, for a large rural centre table.

For the next best design, five dollars, to the same, for a small centre table.

For the best and most approved bouquet, seven dollars to Robert Kilvington, for a beautiful Cone.

For the next best bouquet, five dollars to Archibald Henderson, gardener to Wharton Chancellor, for a handsome basket.

For the next best bouquet, three dollars, to Peter Carolan, gardener to Samuel Welsh, for a handsome basket.

For the best bouquet, formed of indigenous flowers, five dollars, to Robert Kilvington, for a beautiful urn.

For the next best bouquet, three dollars, to Peter Carolan, gardener to Samuel Welsh, for a pretty basket

For the best pair of wreaths, ten dollars, to Archibald Henderson, gardener to Chancellor Wharton.

For the next best do., five dollars for the same.

For the next best do., three dollars, to the same.

Agreeably to the schedule of premiums, your committee have been restricted from awarding any special premiums—yet they cannot feel satisfied, after taking into consideration the taste and skill displayed by several of the contributors of designs, as well as the beautiful addition to the scenic arrangement of the room, unless they recommend the following premiums to be awarded specially; and which they now cheerfully do as follows, viz.

Ten dollars to Alex. Caie, gardener to Mrs. Camac, for a beautiful rustic stand.

Five dollars to Archibald Henderson, gardener to Wharton Chancellor, for a flower settee.

Ten dollars to the same, for a pair of beautiful vases.

Forty dollars to Peter Raabe, for a pair of really magnificent cornucopias.

Five dollars to R. Fetters, for a design of cut flowers.

Seven dollars to J. McKee, gardener to Charles Chauncey, for a very beautiful stand for exhibiting grapes.

Five dollars to Miss Weaver of West Chester, for a very pretty Cornucopia.

Three dollars to Wm. Hall, gardener to Caleb Cope, for a very handsome basket of cut flowers.

Your Committee in closing their report, beg to offer their sincere thanks to the different donors of cut flowers, for the daily contributions made by them in aiding the ladies in decorating the floral part of the exhibition.

All of which is respectfully submitted by

THOMAS C. PERCIVAL,
NATHANIEL KNOWLES,
W. H. DILLINGHAM,
GAVIN WATSON,
JOHN SHERWOOD.

Philadelphia, Sept. 21, 1846.

Report by the Recording Secretary.

The Eighteenth Exhibition of the Society was held September 16th, 17th, and 18th, 1846, in the Museum Building, as heretofore; the general arrangement was similar to former occasions; the lower saloon containing the exotic plants and large floral designs, the upper, the fruits and vegetables.

The plants were shown on tables of like construction to the last autumnal display; the designs were placed in various positions through the saloon with good effect, and consisted of fanciful temples, ornamental cottages, arbors, pagoda, triumphal arch, centre tables, settees, urns, vases, and other devices in increased numbers, in all of which there was a marked improvement in design and embellishment, and received due encomiums from the throng of discerning visitors which constantly graced the saloon.

The arrangement of the display, and the embellishment of the upper grand saloon, in which were arrayed the Fruits and Vegetables, were entirely different from those of former occasions, being in decidedly better taste, and reflected great credit on the originator of the plan. The great number of columns ranging from the galleries to the lofty ceiling, around the entire saloon, were beautifully entwined with evergreen wreaths of Laurel and Spruce, each wreath rising from the Spruce-covered base in admirable taste; fringing the gallery below the columns were the wreaths of Lycopodium, and under each pair of columns on the first floor, were suspended circular wreaths, thus finishing the embellishment with effect.

The tables which were laden with the weight of delicious fruits, etc., were constructed in the most admirable manner for displaying to the greatest advantage this portion of the exhibition, and were disposed at equal distances from the sides of the saloon, through the centre. The first in order, upon entering at the west end, was of circular form, twelve feet in diameter, rising by five terraces to an altitude of nearly six feet, on which were seen the splendid contributions of Peaches, in baskets and glass dishes, the top crowned with a very handsome stand of delicious foreign Grapes, tastefully festooned. The table next in order was one hundred feet in length and eight feet in width, with prominent circular ends of twelve feet diameter, rising by four grades on the south and three on the north range to the height of six feet; on the south were the various kinds of Fruits, the Pears, Nectarines, Plums, Quinces, Figs, Lemons, etc., interspersed in glass dishes; and suspended against a light ground at the topmost elevation, along the entire length, was shown the great abundance of Grapes, presenting this luscious fruit in the best light; on the north range were displayed great varieties of fine vegetables; on the top were the contributions of honey, preserved fruits, grapes in pots, bouquets and arches of growing climbing plants. Crowning the circular ends of this great table, resting on the second elevation, were two splendid evergreen Cornucopias, twelve feet in height, and thirty inches in diameter at the opening, encircled with wreaths of beautiful flowers, the one on the west end pouring forth in the greatest profusion various kinds of fruits—the other at the opposite extremity, an immense amount of vegetables, an appropriate and most beautiful device. The next table in order was of similar dimensions and form with the first mentioned, covered with Apples, exhibiting a great pyramid of that important fruit. The last table to be described was one of immense size, and semicircular form, jutting out from the east end of the saloon, embracing its entire width between the columns, and ascending by grades almost to the gallery, on which was seen one contributor's collection, a rich display of esculents, containing in profusion almost every culinary vegetable in cultivation, and presenting a miniature mountain. A small beautiful Cornucopia from a neighboring county, pouring out its treasures of fruits and vegetables, was placed on the table containing the apples, and between this table and the large one, was a small chaste grape arbor, bearing most delicious foreign Grapes; a very pretty flower stand with handsome evergreen urn, interwoven with fine flowers, and topped with a vase of choice Roses, stood between the large table and the one containing the Peaches. In other parts of the saloon were tables containing vegetables, as those originally prepared proved insufficient.

For the detail of objects, reference may be had to the particulars which follow. A few seem to require a more especial notice, among which might be mentioned a splendid contribution of foreign grapes, grown in the open ground with the slight protection temporarily afforded by cauliflower sashes, during the sudden changes of the summer season, as represented by the contributor at the last autumnal exhibition. A splendid contribution of white Syrian grapes were shown, one bunch of which weighed eight pounds; another, a bunch of Black Hamburg from New-Bedford, which, for size and perfection of berry, has been unsurpassed; one contribution from Andalusia, and another from Germantown, were each creditable for variety and fineness of fruit. A beautiful peach, the Red-cheeked Melocoton, from Chester county, was remarkably fine. A contribution of apples, consisting of several varieties, from Cincinnati, Ohio, was the admiration of visitors, for beauty of appearance, both in regard to size and freedom from imperfections; one variety called Emperor Alexander, was a splendid specimen. Another contribution from Bucks county contained numerous varieties, remarkable on that account. Seedling plums from Spring Garden, and seedling apples from Burlington, New-Jersey, were exhibited.

A vegetable seldom seen and little known, the Celeriac, was presented from West Chester; a contribution consisting of seventeen varieties of seedling potatoes, from Bristol township was observed. A potato recently introduced, originating in New Holland, called the Hobart town variety, was reported to be an acquisition by the exhibitor.

Among the contributions of Plants exhibited, those shown by Caleb Cope, Col. Robert Carr, Gen. R. Patterson, Peter Mackenzie, Chalmets and McDonald, (Camden, N. J.) Robert Buist, Landreth & Fulton, and Ritchie & Dick, were remarkable for number, beauty, and variety.

Extensive collections of fine plants were exhibited also by James Dundas, Jacob Snider, jr., Peter Raabe, Henry A. Dreer, Frederick Allgier, William R. Hanson, Andrew Dryburgh, Robert Kilvington, William Carvill, and Dr. G. Watson.

Some fine specimens were also exhibited by John Morgan, Isaac Burk, and Mrs. Peale.

Magnificent and beautiful designs were exhibited by Archibald Henderson, gardener to Wharton Chancellor, Samuel Maupay, Joseph Cook, Patrick Gallagher, gardener to Miss Gratz, Peter Raabe, Alexander Caie, gardener to Mrs Camac, and Richard Fetters.

Baskets of flowers, bouquets etc., were exhibited by Robert Kilvington, Peter Carolan, gardener to Samuel Welsh, Miss Sydney Weaver, West Chester, William Hall, gardener to C. Cope, James McKee, gardener to C. Chauncey, Benjamin Gulliss, gardener to J Snider, Miss H. Fleeger, Miss Percival, Robert Buist, Andrew Patton, gardener to Mrs. Kohne, Chalmers & McDonald, Gerhard Schmitz, and Landreth & Fulton.

Fruits were exhibited as follows:

John Sherwood, eighteen varieties of fine foreign grapes.

George W. Carpenter, fourteen varieties of the same.

Caleb Cope, twelve varieties of the same.

Joseph Cowperthwait, two varieties of the same.

There were also numerous varieties of Grapes, both native and foreign, contributed by Charles Chauncey, John Anspach, Wm. Arnold, New-Bedford, James Dundas, Edwin Middleton, Jeremiah Comfort, Francis Bodine, Jacob Snider, jr., John Naglee, Robert Buist, Richard S. Field, Princeton, N. J., William R. Hanson, James Laws, Henry N. Johnson, G. D. Smith, John Dougherty, S. Keyser, W. H. French, Gebhard Harris, Isaac B. Baxter, Townsend Hilliard, William Johns, Peter Shuster, Jacob Shible, L. Ackerman, Camden, N. J., D. O. Tatum, Susan J. Smith, Peter Raabe, and Lewis Craft.

Peaches were exhibited by Allen Jones, Burlington, N. J., Isaac Pullen, Heightstown, N. J., Gen. G. Hartman, Chester co., E. W. French, Moorestown, N. J., W. Johns, John C. Clark, Newcastle, Del., Isaac B. Baxter, J. E. Scott, John Sherwood, Charles M. Harker, Mount Holly, N. J., Mrs. B. E. Valentine, A. G. Rowland, Edwin Middleton, C. D. Fell, Robert Johnson, W. R. Hanson, and Wharton Chancellor.

Pears.—John Rutter, West Chester, exhibited twenty-three varieties.

Jabez W. Hayes, Newark, N. J., twenty-one varieties.

Thomas Hancock, Burlington, thirteen varieties.

John B. Smith, twelve varieties.

Numerous delicious varieties of this fruit were also exhibited by Samuel Maupay, Landreth and Fulton, Robert Henry, gardener to G. Blight, Frederick Allgier, Jacob Snider, jr., Samuel A. Walker, Malcolm Macuen, Col. Robert Carr, Jas. Dundas, Mrs. Henry G. Freeman, George W. Carpenter, Jacob Senneff, John C. Clark, Del., G. Liggett, Miss Gratz, Isaac B. Baxter, Townsend Sharpless, W. R. Hanson, Miss F. Fell, John Jackson, Dr. W. D. Brinckle, Edwin Middleton, George B. Deacon, J. H. Ruckman, and Wharton Chancellor.

Apples.—James Moon of Bucks county, exhibited fifty-nine varieties.

John Perkins, Moorestown, N. J., forty named varieties, and some unknown.

George B. Deacon, Burlington, N. J., thirty-four named varieties, and three unknown and three natural.

Thomas Hancock, Burlington, N. J., thirty-eight named varieties, and thirty-six seedling apples.

John Kaighn, N. J., seventeen varieties.

General M. S. Wade, of Cincinnati, Ohio, a Fall Pippin weighing 20 oz., a splendid fruit named Emperor Alexander, a Gloria Mundi weighing 27 oz., and some other varieties.

Fine varieties were also presented by John B. Smith, Wm. R. Hanson, David Holland, Kingsessing, Henry Spachius, Jeremiah Comfort, John Fell, G. W. Carpenter, Henry N. Johnson, Henry G. Freeman, Jacob Haines, Moorestown, N. J., and John Rutter, West Chester.

Quinces.—By Judge Wilkins, Camden, N. J.; Thomas Hancock, Burlington; George J. Leiper, Delaware county; H. S., and from Friends' Asylum.

By D. Landreth & Fulton, the Japan Quince, and by Robert Buist the Chinese Quince.

Nectarines.—By John Sherwood.

Plums.—By C. J. Macuen, Dr. C. M. Griffith, John Rutter, and Kate B. England.

Water-Melons.—By Joseph I. Hatch, N. J., Joseph C. Zane, Miss Gratz, W. Brown, George Cattell, N. J.

Nutmeg Melons.—By Joseph C. Zane and Caleb Cope.

Figs.—By Miss Gratz, Adam Price, N. J., John Nagee, Jonathan Mulford, and John B. Smith.

Miscellaneous Fruits.—By J. C. Whitall, Oranges and Lemons; Caleb Cope, Lemons and fruit of the double flowering Apples; John B. Smith, German Medlars; George W. Carpenter, fruit of Jambosa vulgaris; Mrs. Kohne, Papaws; John Rutter, Almonds; Dr. G. Emerson, Almonds; William R. Hanson, Osage Oranges; Thomas Hancock, Cranberries, and Spanish Cob Nut; Miss Gratz, Filberts; Girard Bank, Filberts; R. Kilvington, American Hard Nut, Miss A. Graham, Walnuts.

Vegetables.—Excellent and large quantities of almost every variety of known esculents were exhibited by Anthony Felten, Jno. C. Engleman, Samuel C. Cooper, George J. Leiper, Dr. E. I. Rivinus, D. R. McCrony, gardener at Friends' Asylum, George W. Carpenter, Robert Henry, gardener to George Blight, Andrew Patton, gardener to Mrs. Kohne, John Riley, gardener at Insane Hospital, Robert Buist, Wharton Chancellor, Isaac B. Baxter, John J. Jennings, John Jackson, Caleb Cope, Miss Gratz, Edward Rogers, James Diamond, N. J., Edward M. Heston, J. R. Bowmen, Miss E. McDonald, Wm. H. Jewell, Jacob Murphey, Jacob Snider, jr., Charles Jessup, N. J., Charles Hopkins, N. J., George Brown N. J J. J. Hatch, and Jos. C. Zane.

Exhibition of November, 17, 1846.

The attendance of visitors was good, and the display remarkably fine, and consisted principally of Chrysanthemums, of which there were seven extensive collections of choice and beautiful specimens; also three collections of green-house plants, containing superb flowering Epiphyllums, Salvias, etc.

A plant of much interest was also shown, the *Littæa geminiflora*, by some called *Buonaparte juncea*, in flower. This is believed to be the first specimen that has bloomed in this country. It has numerous slender roundish radical leaves, some of which bear filaments; all terminate in sharp thorny points; the stem is now about thirteen feet high, slender, with numerous, long narrow scales, arranged in spiral form, terminating in a spike thickly studded with innumerable twin flowers, one-third its length; the flowers are greenish white, petals recurved, stamens and pistils inserted. Two-thirds of the spike have yet to bloom, and the stem will elongate considerable as the blooming progresses.

There were also fine displays of vegetables; also dishes of Pears and Grapes.

The following are the reports of the committees:

The Committee on plants and flowers beg leave to report, that they have awarded the following premiums:

For the best display of plants in pots, $3, to James Buist, gardener to James Dundas.

For the next best display of ditto, $2, to Daniel Lahey, gardener to J. N. Dickson.

For the best bouquet, $3, to Wm. Hall, gardener to Caleb Cope.

For the next best bouquet, $2, to A. Henderson, gardener to W. Chancellor.

A special premium of $1, for a bouquet, to John Sherwood.

For the best twelve named varieties of Chrysanthemums, $3 to Benj. Gulliss, gardener to Jacob Snider, jr.

For the next best twelve ditto, $2, to Archibald Henderson.

For the best American seedling Chrysanthemums, $3, to Benj. Gulliss

The Committee mention with pleasure, a fine specimen of Littæa geminiflora in flower, exhibited by John Sherwood, being the first, they believe, ever flowered in the country, for which they have awarded him a special premium of $15.

They would also mention the general fine display of Chrysanthemums and Epiphyllums, the latter the best and finest specimens ever exhibited before the Society.

The Committee on Fruits report that they have examined the following in their department this evening, viz.

A dish of Pears, (Frederic of Wirtemburg,) deposited by I. B. Baxter.

A dish of Pears, by Benjamin Gulliss, gardener to Jacob Snider, jr.

A mammothApple from Virginia, by Caleb Cope.

A dish of luscious Grapes, White Muscat of Alexandria, by J. Sherwood.

A dish of winter Pears, by C. J. Macuen.

And your Committee recommend a premium of one dollar each to the contributors of Pears, and three dollars for the Grapes to John Sherwood.

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The Committee on Vegetables report that they have awarded the following premiums, viz.

For the best celery, six stalks, $3, to Wm. Sinton, gardener to G. W. Carpenter.

For the best Cauliflowers, five in number, $3, to Albinus L. Felten.

For the best Broccoli, five in number, $3, to Anthony Felten.

For the most interesting display of Vegetables, $3, to Anthony Felten.

For the next ditto, $2, to Daniel Lahey, gardener to J. N. Dickson. All of which is respectfully submitted.

Members elected.—Alfred S. Monson, M. D., President of the New-Haven Horticultural Society; George Gabriel, Sec. and Virgil M. Dow, M. D., one of the directors of the same; Ex-Governor Henry M. Edwards of New-Haven, and J. B. Mantel, of New-York, to *honorary membership*.

Joseph B. Zane, Camden, N. J., Robert H. Thomas, Bohemia Manor, Md., Eli K. Price, John Grey, Wm. J. Jenks, D. W. Eldridge, Dr. G. H. Beaumont, Dr C. M. Griffiths, Dr. Thomas H. Yardley, Charles S. Wents, jr., J. R. Johnson, and Samuel Bough, to *resident membership*.

THO. P. JAMES, *Sec.*

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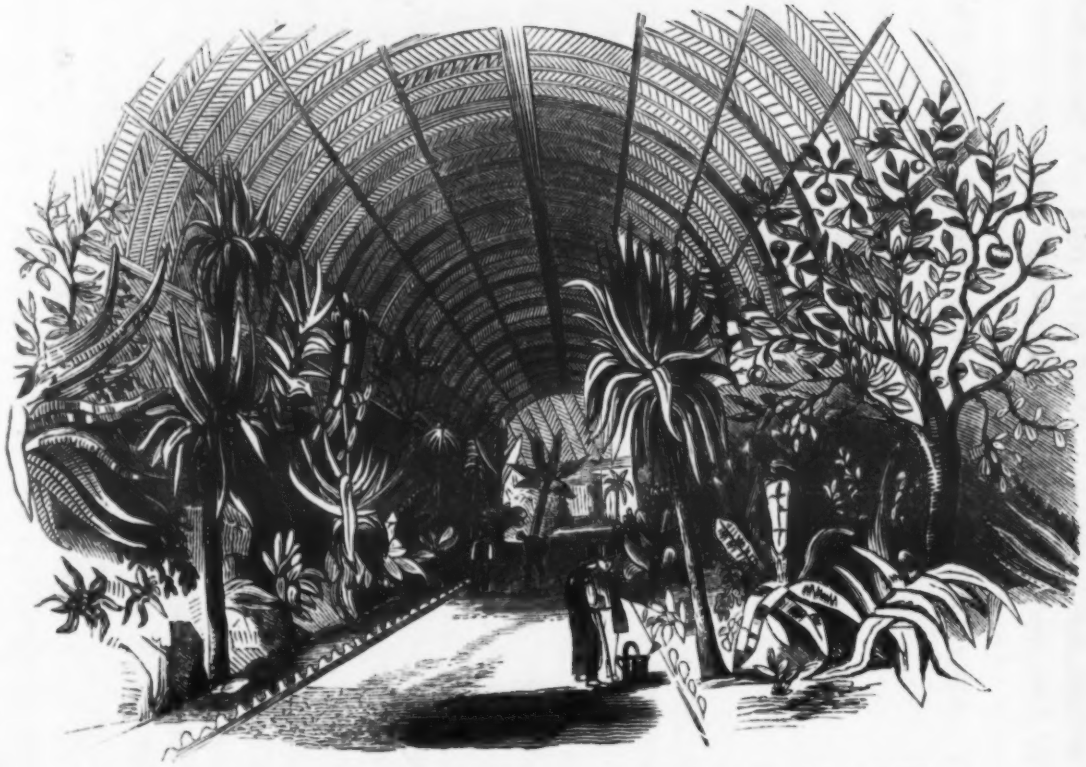

INTERIOR OF THE GREAT CONSERVATORY AT CHATSWORTH.

[Horticulturist, Jan. 1847.]